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## ABSTRACT

This document contains the following 26 papers presented at the first Academy of Human Resource Development (HRD) Conference: "Management as a Service to Internal Customers" (Antonioni); "Developing Texas State Agency Executives for the Learning Organizations" (Bales); "How Executive Businesswomen Develop and Function in Male-Dominated Organizational Culture" (Bierema); "Union Leaders' Attitudes towards Responsibilities for Training" (Black, Robinson, Trivette); "Quality Shock: Cross-Functional Commitment at Motorola" (Browning, Weick, Powers); "The Maquiladora Industry: An Analysis on Voluntary Turnover" (Huerta); "New Employee Adaptation to the Workplace: A Learning Perspective" (Copeland, Wiswell); "An Organizational Strategy for Professional Ethics" (Dean); "Learning from Life-Experiences to Cope with Change: The Case of Top Managers in Public Service Enterprise" (Finger); "Russian Organization Development from a Russian Perspective" (Geroy, Carroll); "Organizational Factors Relating to Employee Acceptance of Peer Rating in Industrial Organizations" (Geroy, Wright); "Organizational and Occupational Cultures: A Comparative Inquiry through Organizational Stories" (Hansen, Kahnweiler); "The Development of a Cognitive Learning Style Instrument and the Investigation of Foundational Common Cognitive Constructs" (Hardy); "The Relationship between Total Quality Management and Job Satisfaction in the Maquiladora Industry" (Limon); "New Employee Development Tactics: Availability, Perceived Helplessness, and Relationship to Job Attitudes" (Holton); "Structuring On-the-Job Training: Part 1--Background and Research Design" (DeJong, Versloot); "Balancing Act; Temporary Employment in Women's Careers" (Jackle); "A Comparison of Trainer Opinions of Twenty Training Methods" (Kaupin); "Political Scripts: An Exploration into How Human Resource Developers Gain Influence" (Kirk, Shoemaker); "The Identification and Evaluation of Dimensions of Managerial Success for Different Levels of Management" (Loubser, de Jager); "The Learning Organization: An Integrative Vision for HRD" (Marsick, Watkins); "Community Change: Review and Implications of Several Change Models to Human Resource Development" (Moore); "Irrational Organizations and Implications for Systemic Culture Change Initiatives: A Case Study" (Pierson, Brooks); "Supporting Employees' Learning Transfer: The Role of the Manager and the Organization" (Preskill, Kusy); "The Theory/Practice Conflicts of Needs Assessment" (Sleezer, Bjorkquist, Leimbach); "Triangulation in Human Resource Development: A Case Study in a Public Agency" (Umble); and "Design and Development of an Assessment of Readiness for Training: The START [Strategic Assessment of Readiness for Training]." (Weinstein et al.). (KC)

# Academy of Human Resource Development Conference

## 1994

San Antonio Hilton  
San Antonio, Texas



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**Academy of  
Human Resource Development  
Conference**

**1994**

**Proceedings**

Edited by  
Annie Brooks  
and  
Karen Watkins

San Antonio Hilton  
San Antonio, Texas



**ACADEMY OF  
HUMAN  
RESOURCE  
DEVELOPMENT**

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Dear Conference Participants,

Welcome to the first Academy of Human Resource Development Conference. You are part of an historic event. We are delighted that you could be with us. Enclosed in these pages are many of the papers that will be presented in this conference. We think that you will see evidence of the exciting growth of our field in these pages. Even the large numbers of proposals---twice as many as we have received in recent years---suggests that many of you have been waiting a long time for something like the Academy. One of the great joys of a new venture is that we can bring our hopes and dreams for the Academy to these meetings and influence the shape and direction of this group. I hope that you will let us know what you would like to see in the future at the annual conference.

For now, enjoy the stimulating range of papers in this volume. As Program Chair for the Conference, I am especially grateful to the University of Texas at Austin for serving both as host for the first conference, and also for sponsoring the publication of this proceedings. The Academy would be very remiss if it did not thank Dr. Tom Shindell for the countless hours he devoted to making this conference happen and Robert Cox for his excellent guidance and expertise.

I want to thank Dr. Annie Brooks and Paul Kavanaugh in particular for their efforts in editing and compiling this book. We also thank the authors of these papers for their willingness to respond to a very tight timetable so that we could inaugurate this first conference with Volume I of what we hope will be a lifetime of volumes to come.

Welcome again to the conference.

With Best Wishes,

Karen E. Watkins  
Program Chair and President-Elect  
Academy of Human Resource Development

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## **Management as a Service to Internal Customers**

David Antonioni, University of Wisconsin - Madison

### **Abstract**

Managers need to make a paradigm shift from controlling and handling subordinates to providing services to their internal customers, or the individuals who directly report to them. General characteristics of service and an operational definition of service quality, along with four dimensions to assess management services, are included. A new management model for staff managers describes four main managerial service functions using a systems approach. Implications for the human resource development field are also discussed.

### **Introduction**

Re-education is necessary to help managers change how they view their managerial functions. Traditionally the role of management was to control, handle and manipulate subordinates to get them to do what management wished. This meant that organizations established that subordinates were to be placed below another in rank and that they were to be expected to be obedient and submissive. However, new attitudes for managers are emerging, advocating that managers let go of the paternalistic model of manager-subordinate and use stewardship management by developing partnerships between managers and individuals who directly report to them (Block, 1993). In addition, servant leadership, or an "effort toward building an institution in which you [the manager] become more the manager of a process that gets the job done and less the administrator of day-to-day operations" has been advocated as a new model for leading organizational members (Greenfield, 1989). Finally, managers need to understand that if they are not serving external customers directly then they should be serving someone who is, namely, their internal customers (Albrecht, 1990).

### **Managerial Effectiveness**

Various approaches have been taken in defining managerial effectiveness. Katz and Kahn (1978) described critical factors for leaders at all levels to address, such as environmental scanning for executives and diligent administration for first-level supervisors. Stodgill (1967) suggested that two dimensions of managerial behaviors were important: showing concern for people and concern for productivity. Others like Mintzberg (1973) and Yukl (1989) have suggested multiple dimensions of managerial effectiveness. These approaches to managerial effectiveness are dated and limited in terms of their usefulness as a theory of managerial effectiveness.

A new model based on management as a service to internal customers and specifically addressing staff managers is necessary to develop managerial effectiveness. In contrast to functional/line managers, staff members frequently work with people from many different departments and tend to serve a broader range of stakeholders. Although very little has been written about staff managers, it is the author's experience that staff managers are increasing in number. In addition, functional/line managers effectiveness is measured by production quantities while staff managers are measured by soft measures invented by higher-level organizational members.

The conceptual work for the model is partly based on the work of Campell, et. al. (1970) using three interdependent factors: the person factors of the manager, such as knowledge and skills; behavioral factors, or the things managers say and do; and outcome factors such as task accomplishment or productivity. Based on this conceptual framework managerial functions will later be described and integrated in a systems model.

#### Internal Customers and Service

Managers must anticipate the needs and expectations of various stakeholders, including their supervisors, external customers, board members, and stockholders (Freeman, 1984). The author wishes to extend the definition of stakeholder to include individuals who directly report to a manager. These individuals are internal customers of the managers because their performance is dependent on the quality of their manager's work. Individuals who directly report to managers will hereafter be referred to as "staff."

The concept of viewing employees as customers was first mentioned by Berry (1981) and more recently by Baldwin and Magjuka (1993) and Bowen (1993) in context of human resource management delivering services to internal customers. For the purposes of this paper an internal customer is defined as any person, work group, or department whom receives the "work" of the staff manager. For example, how well managers plan will affect their staff's performance and perceptions of the quality of their manager's planning behaviors. These managerial work behaviors are an example of managerial services.

Service it is as an act of giving assistance by one party for another (Webster, 1989). Service has a number of characteristics. First, the customer experiences a service in contrast to taking ownership of a product. Second, service is produced and consumed simultaneously and are exchanged faced to face. Third, the service must meet the customer's preferences at the point of delivery. Fourth, customers help to create the service they receive by participating in producing the service. Each customer makes decisions about the quality of the service. Adjustments in the service are made frequently in order to satisfy the customer (Bowen and Greiner, 1986).

Using the service framework managerial behaviors can be thought of as service. For example, a manager's staff expects that the manager will provide timely and relevant information to them. The staff depends on this information to plan their work or make adjustments to changes. Staff may feel that managers who do not collect the information or establish a communication network for staff to access the information may be providing poor service.

Management service quality is defined as the degree and direction of discrepancy between the staff's perceptions and expectations. Perceived service quality is high when perceptions are better than expectations (Parasuraman, Zeithaml, and Berry, 1988). A service quality gap exists when perceptions do not meet expectations. Each manager's staff has expectations (desires or wants) for the services their manager will deliver. Managers need to discuss staff expectations and develop ways to measure them.

The quality of management services can be measured by an adaptation of four primary dimensions used by Parasuraman, Zeithaml, and Berry (1988): (1) The reliability of the manager's conceptual ability to deliver services accurately and dependably; (2) The manager's responsiveness in providing timely management services; (3) The extent to which managers empower their staff by inspiring confidence and trust in their staff; and

(4) The degree of empathy managers have for each staff person as they deliver management services. One of the best ways to measure all four dimensions of service is through upward appraisals in which the manager's staff evaluate their manager at least once a year.

#### Designing a System to Deliver Managerial Service

Theories of managerial effectiveness have not included the role managers play in designing a work-processing system. Senge (1991) was one of the first scholars to acknowledge that an important role of effective leadership is that of architect: managers must help to design an effective system of processing work. Deming (1986) first introduced the key role work processes play in producing quality, emphasizing that the needs and expectations of the customers should be included in designing an effective process.

Viewing managerial effectiveness from a systems standpoint has a number of implications. First, more emphasis is placed on business process transcending the boundaries of functional departments (Kane, 1992). The current development of cross-functional teams highlights the extent to which organizations are intentionally interconnecting boundaries. Second, improving quality process ownership rather than blaming others for quality problems is necessary. Companies like Eastman Kodak, General Electric and Motorola now encourage process ownership in an attempt to reduce the tendency of departments and teams finding fault with each other. All organizational members should take responsibility for improving work processes. Reducing time for the work cycle, errors, and rework as well as improving overall efficiency and effectiveness must be a collective effort. Finally, seeking employees' perspectives is one way of creating feelings of empowerment (Ashford, 1989). Many organizations today, at least in theory, advocate empowerment. Improving business processes requires that staff managers seek input from their staff, especially regarding needs and expectations that contribute to improving work or business processes.

The Shewhart cycle (Scholtes, 1988) used in quality management is applicable to designing management services. The cycle involves four phases: Plan, Do, Check, and Act (PDCA). The planning phase is a critical part of design as a framework is established that will guide individuals while they attempt to attain goals. Usually, the gap between current and desired performance is discussed. For example, if the amount of rework is currently 30 percent a new goal of 15 percent is established. The process for attaining the goal is a critical part of planning. Ideas for how to improve the process are discussed and a decision is reached as to which ideas to try. The do phase involves implementing the new ideas. During the check phase new ideas are measured, evaluated and discussed. Finally, in the act phase adjustments are made to enable a continuous improvement of processes through actionable knowledge.

#### Four Main Managerial Functions

A new model of four main managerial functions can be established using the Shewhart cycle. The four functions are planning, implementing, assessing, and adjusting. A brief description of each of the functions follows.

As a general guideline, managers should expect to spend at least 25 percent of their time planning. The planning process for many staff managers will require that they spend time meeting with departments and work units outside their immediate area. In the planning phase there is a range of managerial service behaviors. First, managers provide

a service to their staff by gathering relevant information and providing their staff with the information. Managers understand the needs and expectations of stakeholders and communicate them to the staff. Next, managers help the staff understand the organization's vision, mission, and how the group performance contributes to the organization's performance. Mutually established performance goals and work process improvements are a critical part of the action plan for goal attainment. Finally, managers provide a service by preparing a budget to insure that staff have the resources allocated to support goal attainment.

Implementation as a function means that managers guide their staff through the plan, allocate and utilize human resources, and facilitate work process improvement ideas that are linked to attaining goals. In addition managers help their staff design process improvement projects, act as coaches that ensure sure their staff have necessary training, and help conduct effective meetings. They are available to help their staff solve work problems and make decisions.

The assessment function requires that managers sample their staff's work behaviors and performance, give and receive feedback, and check on the progress of process improvement projects. One of the most important services managers can deliver is timely and specific feedback. Managers must know how to gather observations of work behaviors and performance. These observations need to be recorded and then presented in a manner that helps staff learn from the feedback. Staff managers also need to gather feedback from multiple appraisers (stakeholders) and then present this feedback to their staff. The benefit from this service is that the staff has an opportunity to learn and grow as a result of receiving the feedback.

In the adjustment function managers help their staff create knowledge from data collected, draw implications for future process improvement projects, and implement recommendations into successive plans. In the early part of this phase managers provide a service by helping staff learn from their work, especially their mistakes. The knowledge and learning that is created in the adjustment phase serves as input for the next cycle of planning. Another important service behavior for managers is follow-through on implementing recommendations for improvement in the prescribed time frame. Adjustments may be made monthly, quarterly, or biannually.

#### **A Systems Approach to Managerial Service**

A systems approach (Katz and Kahn, 1978) consists of inputs, processes, and outputs provides an overall perspective for how managerial functions are processed. Managerial service for inputs consists of the four main managerial functions: planning, implementing, assessing and adjusting. How the manager enacts these functions is the process. The manager's listening and communication behaviors affects the staffs perceptions of the managerial behaviors. For example, if the staff expect to participate in solving problems and making decisions then the manager must use a participatory leadership style or else there will be a gap between the staff's perceptions and expectations of managerial behavior. The manager must know how to manage or resolve conflicts and influence people. Outputs can be measured by goal attainment, process improvements, and internal customer satisfaction. The importance of process improvements can not be overstated. Work and business process improvement is an important factor in re-engineering organizations (Champy and Hammer, 1992). Internal customer satisfaction is measured using an upward appraisal process. Ideally, the manager's staff evaluates his or her behaviors twice a year. The manager uses the feedback to pinpoint areas of managerial service that need improvement, set improvement goals and action plans.

## Implications for Human Resource Development

Many managers do not see their position as one requiring them to deliver managerial services to the individuals directly reporting to them. A review of the literature on management found no mention of the manager as a service provider to others in the organization. The concept of internal customer is also relatively new in management literature. Managers may have difficulty adapting to a service orientation because it does not fit with how they were trained or what the organization rewards. Human resource development therefore faces a major challenge in preparing managers for twenty-first century. What can the human resource development field do?

First, the vision of human resource development needs clarification and renewal. As Covey (1991) states in one of his principles of leadership, "begin with the end in mind." If training could develop an ideal manager, how would the manager function and relate to others who directly report to them? Human resource development needs to assume a leadership role in developing a vision for managerial and organizational development. Education and training should find ways to help managers treat their staff as they treat external customers. It may be critical to human resource development to value structural organizational changes that support training, e.g., changing the reward system to ensure a strong link between desired managerial behaviors and pay.

Second, human resource development must to emphasize a service, not a production, orientation. The latter places emphasis on "turning out tangible, uniform products for consumption," and focuses on "creating a service that will meet the changing needs over time and is unique to each customer's situation" (Bowen and Griener, 1986).

Third, human resource development should enact a model of training as a service to internal customers in the organization. Therefore, reframing the definition of who is a customer is necessary. Traditionally, management training needs were defined by asking managers. However, the managers' staff should also be included in the needs assessment because they are next in line to experience what their managers learned in training.

Fourth, human resource development should commence an upward appraisal process in which a manager's direct reports appraise the manager's behaviors. Upward appraisals provide a measure of the quality of managerial services managers deliver to their staff and measure the effects of managerial training programs. Upward appraisals provide important structural support for the concept of management is a service to internal customers.

Finally, the concept of a manager's staff as internal customer is a major shift in mindset for many managers. Some managers are going to perceive a great loss of control, power and status. Human resource development needs to help managers grieve their losses before expecting them to accept change. In addition to training, managers may need coaching and counseling to help them make the transition to treating their staff members as internal customers.

## Conclusion

How we look at something depends upon what we see. One of the classical examples of this is the picture of two figures, an old and a young women. Some individuals can only see one or the other figure. Learning how to use one figure as the background is critical for seeing the figure. Similarly, if the paternalistic hierarchy

management approach is used as background a new mindset may appear to advance the purpose of management in organization. Most of us have never worked with a manager who had a service orientation to management. Many of us are longing to work with managers who would treat us internal customers. Greenfield (1991) states that leaders need to have two intellectual abilities: a sense for the unknowable and an ability to foresee the unforeseeable. Now is the time for human resource development leadership to redesign managerial functions into a service orientation.

#### References

Available upon request from the author.

## DEVELOPING TEXAS STATE AGENCY EXECUTIVES FOR THE LEARNING ORGANIZATION

Barry Bales

### INTRODUCTION

The emergence of a world economy that is causing such dramatic changes in the world of business is affecting the governmental sector as well. Entire industries have disappeared as a result of increased competitiveness both in the United States and abroad (Barker, 1993), and governments have been faced with budget deficits, downsizing and layoffs. But tight budgets are not the only problem in the public sector. Governmental bureaucracies are increasingly viewed as bloated and inefficient, and, according to Osborne's and Gaebler's (1992b) best-selling book on Reinventing Government, a growing number of citizens do not feel that the number or efficiency of state and local governmental services would be improved even if they were willing to support a tax increase.

What is suggested, then, are new ways of addressing and delivering governmental services, and this will require new ways of thinking and changes in organizational structure, culture and leadership skills and abilities (Brizius and Campbell, 1991; Senge, 1990; Osborne and Gaebler, 1992). Senge (1990) contends that, because of the effects of internal systems, changes in organizational policies, structures and cultures are always difficult to accomplish, and are almost impossible without the commitment of creative, reflective, learning-oriented leaders and followers. The establishment of a learning environment within government will help encourage the type of innovative thinking that is needed, and commitment from top governmental executives will be needed to establish and maintain such an environment.

How will we develop these innovative and creative leaders? It was the purpose of this study to identify the key developmental incidents of state government executives possessing the skills and abilities related to the learning organization so that the executive development process in government might be adapted to better meet the challenges of the 1990's.

### LITERATURE REVIEW

Three major areas of research were reviewed for this study. The literature on executive development identified some of the "learning" competencies needed by executives (Margerison, 1984; Margerison and Kakabadse, 1985; McCall, Lombardo and Morrison, 1988; Burgoyne and Stuart, 1978b; Vicere and Freeman, 1990; Hendrickson, Cobb and Neubert, 1985), such as leadership, motivation, communication, human resource management, organizational change, strategic development, problem-solving, proactivity, systems thinking, and conceptual creativity. For purposes of this research, executive development was considered a part of the broader umbrella of management development, and the focus was more on the processes involved in development rather than on the specific targets (i.e., executives) of those processes.

The research on informal and incidental learning (Marsick and Watkins, 1991), learning through failure (Sitkin, 1992) and the work of McCall, Lombardo and Morrison (1988) show that executive learning is much more extensive than just what occurs in formal educational programs. Informal learning often takes place in the course of one's job and can include supervision, observation of fellow workers, learning from one's mistakes, reading, and self-study (Marsick and Watkins, 1990, citing Carnevale, 1984). Incidental learning is a lifelong process in which one, through reflection, makes meaning of his or her experiences and life situations (Marsick and Watkins, 1990; Nadler, 1982; Jarvis, 1987; Hasselkus and Ray, 1988). Failure -- especially productive failure, according to Sitkin (1992) -- provides an incidental learning opportunity that can lead to insight, understanding, and eventually to organizational wisdom; in modest levels it can actually promote the willingness to take risks (Sitkin, 1992; Garvin, 1993).

The third area of research covered the literature on the learning organization, which provided both a conceptual base for this study and helped identify the skills and abilities used in the selection process for the subjects of this study. There is some agreement that such an organization facilitates the learning of all its members (Hawkins, 1991; Burgoyne, 1992) and the transmission or communication of this learning from one organizational member or group of members to another via organizational histories and norms (Simon, 1991, 1969; Fiol and Lyles, 1985; Shrivastava, 1983; Burgoyne, 1992; Levitt and March, 1988). More importantly, is that this new information must be used to better understand and affect the relationship between organizational activities and outcomes (Levitt and March, 1988; Fiol and Lyles, 1985; Simon, 1969; Shrivastava, 1983; Duncan and Weiss, 1978). Most would agree that such changes are instigated by individuals and several have written about the key characteristics needed by executives in the learning organization (Senge, 1990; McGill, Slocum and Lei, 1992; Easterby-Smith, 1990; Albrecht, 1987). These characteristics seemed to group into the following five major areas, which were used as the selection criteria for participants in this study: (1) *Critical Reflectivity*, which involves the ability to question one's assumptions and willingness to reframe one's position; (2) *Creativity and Experimentation*, which includes the mental flexibility and willingness to experiment with new ways of doing things; (3) *Systems Thinking*, which is the ability to see the patterns and interrelationships both within and outside the organization; (4) *Team Learning*, which is the encouragement and integrating of divergent views; and (5) *Personal Mastery and Developing/Encouraging Shared Vision*, which is the personal commitment and the collective resolve to working toward the organization's vision.

#### METHODOLOGY/DATA COLLECTION AND ANALYSIS

This study was patterned after a similar study of private sector executives conducted by McCall, Lombardo and Morrison (1988), and used a qualitative research design and a phenomenological approach to answer the following questions: (1) "What are the critical career experiences and lessons learned that Texas state agency executives, nominated as possessing the skills associated with the learning organization, designate as important in preparing them for their current position?"; and (2) "To what extent are these experiences similar or different than those reported by private sector executives?" Participants in this study were identified through a two-step nomination process involving five current and former state agency executives as "nominators," each of whom, by the researcher's assessment, possessed the skills of the learning organization as described above.

The two-step nomination process had each nominator identifying -- and then selecting among those already identified -- ten current or former state agency executives having high and low levels of the learning organization skills. The results showed that twenty-two persons were identified more than once: fifteen persons as having those skills and seven as not having those skills. Those having the learning organization skills were then labeled "Group A" and those without the skills were labeled "Group B." Five of the nominees either declined participation or could not be located. That left a final interview sample of seventeen executives -- twelve in Group A and five in Group B -- and one-hour, taped interviews were conducted with each. The final sample also included twelve males and five females. The interview schedule, adopted from the McCall, Lombardo and Morrison study (1988), asked two questions: (1) "What were the three 'key events' in your career that made a difference in the way you manage now?", and (2) "What lessons did you learn from each event?"

The tapes were transcribed, with all identifying references deleted. Information on each critical incident was coded using the categories developed in the McCall, Lombardo, and Morrison study (1988), and a total of five coders were used in the coding process. Coders were given instructions to add categories of events and lessons learned if the McCall descriptions did not seem appropriate. After each had finished coding, consensus was reached on each of the coding decisions. Unanimous agreement was reached on the categorization of all 59 reported incidents and on 126 of 130 reported lessons. Through the coding process and the subsequent discussions, three additional lesson categories were added to the initial ones identified by the McCall study (1988).

Descriptive statistics (sums, means and percentages) were used to analyze the data by incident and lesson category by Groups A and B, by gender, and by comparing these results of public sector executives with those of private sector executives found in the McCall, Lombardo and Morrison study (1988). Since it was possible for a person to identify specific events/lessons more than once, an additional comparison was made between the numbers of persons reporting events and lessons and the overall numbers of events and lessons reported to determine if the results were skewed by multiple reporting. With the exceptions noted below, the relationship between the two different results were consistently in agreement.

#### SUMMARY OF RESULTS

The two general findings related to this study's research questions were: (1) differences were found between the critical developmental experiences identified by the public sector executives with high levels of the learning organization skills and those with lower levels of those skills; and (2) differences were found between the

Table 1: A Comparison of Events by Groups A, B, and Private Sector Executives

Events	Group A		Group B		Private	
	n=43	%/total	n=16	%/total	n=616	%/total
Starting from scratch	2	5%			34	6%
Reorganizations: fix it	1	2%	1	6%	67	11%
Org. testing grounds: task force			1	6%	76	12%
Mgmt. transitions: change scope	4	9%			104	17%
Line to staff switch					13	2%
Role Models	9	21%	6	38%	46	7%
Short-lived events: values	9	21%	1	6%	65	11%
Business failures & mistakes	3	7%	1	6%	24	4%
Demotions, missed promotion	1	2%			27	4%
Taking charge events: Bkg rut	2	5%	1	6%	24	4%
Subordinate perf. problems	1	2%			21	3%
Personal trauma	1	2%	1	6%	11	2%
Coursework events	5	12%	3	19%	38	6%
Early work experiences	3	7%			20	3%
First supervision			1	6%	30	5%
Purely personal events	2	5%			16	3%
Total events reported	43	100%	16	100%	616	100%

developmental experiences of public and private sector executives. The data portrayed in Table 1 show the results in the event categories identified by the Center for Creative Leadership Study; for a complete description of these categories of events and lessons see *Key Events in Executives' Lives* (Lindsey, Homes, and McCall, Jr., 1987).

Both similarities and differences were found in the developmental experiences of members of Groups A and B, and many of these experiences could be classified as informal and incidental learning. Both Group A and B members reported high incidents of Role Models (both positive and negative) as critical to their development, although Group B reported in substantially higher numbers (percentage-wise) than did Group A members. Group A members were much more likely than members of Group B to identify as critical experiential learning events -- such as Management Transitions: Change in Scope, Starting from Scratch, and Early Work Experiences -- and incidental learning events such as Short-Lived Events (unexpected occurrences or observations of others from which

valuable, unplanned lessons were learned). Since Short-Lived Events are primarily cases of unplanned learning, persons must make their own meaning (or learning) from such events, which would require the skill of critical reflectivity. This skill has been identified by this study as one of the critical skills of the learning organization and, as such, may not have been present at high levels in the participants of Group B.

These findings alone -- although there were cases of informal/incidental learning in other events as well -- support the research by Marsick and Watkins (1990) and suggest that informal and incidental learning events are a critical development path for executives in the public sector.

Group B members were more likely than Group A to identify as critical the formal (Coursework) learning events, although this was a relatively high category for Group A as well. The high incidence of Coursework Events among government executives, in relation to that reported by the private sector, could be due to the inclusion of academic degree programs in this category. It might also be a reflection of the relative lack of opportunity for experiences in the first five categories of events which are collectively called Developmental Assignments. Group B reports could be higher due to the critical reflectivity difference (which is higher in Group A members) that has been cited earlier as of benefit in learning from unintended (incidental) learning opportunities. The higher level of these reflectivity skills in Group A may result in an expanded universe of possible learning experiences.

Examining the critical incidents of executives only tells part of the story. As important, or perhaps more so, are the lessons learned from these experiences. Seven of the 37 categories of lessons accounted for almost half of all lessons learned by members of Group A: (1) Basic Management Values, (2) Self-Confidence, (3) Seeing Organizations as Systems, (4) Politics is Part of Organizational Life, (5) Persevering Under Adverse Conditions, (6) Finding Alternatives in Framing and Solving Problems, and (7) Dealing with People. Group B's lessons were grouped more tightly than those of Group A. The top five lessons (out of the total 37 lessons) in Group B accounted for 61% of all lessons reported ((1) Direct and Motivate, (2) Use and Abuse of Power, (3) Perspective on Life and Work, (4) Sensitivity to Human Issues), but the only overlap with Group A was in the category of Basic Management Values. The findings of these mostly different groups of lessons seem to support the anticipated differences in lessons learned between the two groups.

These differences are more apparent when one considers the lessons that could be associated with or are indicative of the learning organization -- Self-Confidence, Seeing Organizations as Systems, Politics is Part of Organizational Life, Persevering Under Adverse Conditions, and Finding Alternatives in Framing and Solving Problems. As can be seen from Table 2, Group A members identified the "learning organization lessons" much more often than did Group B members.

Although not the focus of this study, a comparison was made of the public sector executives by gender to determine if such results would have a skewing effect on the overall results. Women executives were more likely than men to identify relationship lessons, which was expected based on Carol Gilligan's work (1992), and men were more likely than women to report Developmental Assignments. It is interesting to note, however, that Group A women were more like Group A men than Group B women in the reporting of the lessons associated with the learning organization skills.

The findings also suggest that differences exist between the critical developmental incidents of public/private sector executives. The private sector executives had an overwhelmingly high percentage (48%) of all reported events in the category of Developmental Assignments (Starting from Scratch, Reorganizations: Fix It, Task Force, Change in Scope, Line to Staff Switch) compared

**Table 2: A Comparison of Total Learning Organization Lessons Reported by Public/Private Sector Executives**

Learning Organization Lessons	Group A		Group B		Total	
	n=99	%/total	n=31	%/total	n=1537	%/total
Seeing orgs. as systems	8	8%	1	3%	43	3%
Alternatives/problem solving	4	4%		0%	41	3%
Politics part of org. life	7	7%		0%	60	4%
Self-confidence	10	10%	1	3%	106	7%
Persevering/adverse conditions	6	6%		0%	48	3%
<b>Total for five lessons</b>	<b>35</b>	<b>35%</b>	<b>2</b>	<b>6%</b>	<b>298</b>	<b>19%</b>
Expected if evenly distributed	13	14%	4	14%	208	14%
Remaining 32 lessons	64	65%	29	94%	1239	81%
<b>Total lessons reported</b>	<b>99</b>	<b>100%</b>	<b>31</b>	<b>100%</b>	<b>1537</b>	<b>100%</b>

with those reported by the public sector executives (16%). This finding would tend to indicate a more proactive role in succession planning on the part of private industry. It may also help explain why, lacking the strategically-designed, developmental assignments available to private sector executives, role models and others from whom public sector executives learn might be the next best source by which to develop their executive abilities.

As can be seen from Table 2, the public sector executives reported the learning organization lessons in greater numbers (35%) than did their private sector counterparts (19%). Reasons for this difference could be due to selection criteria and processes, size of sample, etc. Without more information to go on, the important finding seems to be that the cumulative totals for both groups are somewhat higher than would be the case by an even distribution of lessons learned from the 37 different categories.

## CONCLUSION

The findings of this study have implications for executive development, informal/incidental learning, and the learning organization. The conceptual model posited by McCall, Lombardo and Morrison (1988) of executive development as a series of choices might be amended to frame these choices as involving dual learning paths (consistent/not consistent with the learning organization). Executive development in state government, while admittedly a personal responsibility, must become a recognized responsibility of current executives, and increased use must be made of developmental assignments for aspiring executives. Also, the important role of mentors must be recognized and employed effectively, and time must be made for the reflection and analysis which is necessary in the learning organization.

Further research should be conducted to explore the relationship between informal/incidental learning and executives with learning organization skills. The findings suggest that those with these skills have a much higher incidence of such learning.

More research is also needed to identify and validate the relationship between the skills associated with the learning organization. Are some more important than others? Such research would help in the sequencing of developmental activities.

While this research did not attempt to determine causality for the development of the learning organization skills and was somewhat limited due to the small sample size and the nature of the participants (i.e., they may not accurately reflect all executives in state government), it did help suggest strategies that might be considered in developing executives in Texas state government.

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## HOW EXECUTIVE BUSINESSWOMEN DEVELOP AND FUNCTION IN MALE-DOMINATED ORGANIZATIONAL CULTURE

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### Abstract

The demographics of the workforce are changing and the presence of women is increasing along with their ascension into executive ranks. Despite this, little is understood about women's learning processes in organizations. This study explores how executive women learn the corporate culture and proposes steps that organizations and women can take to maximize their likelihood of success in the organization.

### Background

Women compose nearly half of the workforce and their numbers continue to increase. Some women have achieved positions of power and responsibility in organizations, a trend that is expected to continue, based on demographics (Hudson Institute, 1987, Gonzales, 1988; Noe, 1988; Bloom, 1986). It is in the organization's best interest, therefore, to attract, develop, and retain women. Morrison (1992) notes that failure to develop women for top management jobs cuts the talent pool significantly. Further, companies that do not promote diversity programs will find it difficult to compete for employees and market share. Despite this reality, women's experience in organizational culture is often a toilsome struggle to advance. Executive women contend with the "glass ceiling" syndrome in which they reach a certain organizational level, and then as if there were an invisible glass barrier above them, move no higher in the corporation (Morrison, White, Van Velsor, & Center for Creative Leadership, 1992).

Despite the hurdles, some women have ascended the corporate career ladder. Women who have entered the executive ranks of management have ventured into a system designed and maintained, for the most part, by white men. Although we know that women are achieving higher positions in corporations, their presence in them is not representative of the growing numbers of women populating the workforce. In fact, one analysis of workforce demographics indicates that nearly 70% of the female (or male) workforce would have to change vocations to achieve an equitable sex mix within each occupation in the labor force (Meyer & Maes, 1983).

The number of women executives in organizations is disproportionate when compared to the number of women populating the workforce. Executive women encounter vast barriers to advancement in organizations. By examining social and organizational culture we have an opportunity to gain insight into women's experience in organizations, as well as uncover clues to improve women's development and advancement in the future.

### Purpose of Study

The purpose of this study was to understand how executive women functioned and developed within the context of white male-dominated organizational culture. Questions guiding this study were: What formal and informal learning did women experience to develop their understanding of organizational culture? What barriers did women encounter in their climb up the corporate ladder? What were executive women's strategies for coping and excelling in corporate environments? This study is important in that it contributes to adult learning, organizational anthropology, organizational development, and human resources development theory and practice.

### Methodology

Organizational anthropology and the feminist perspective provided conceptual frameworks for the study. Organizational anthropology is an evolving approach to understanding organizational phenomena. It is different from traditional organizational

approaches in that it takes a systemic or holistic view of the organization. It values the native (or employee) perspective and to that end becomes involved in the daily workings of organizational environments. Traditional anthropological field techniques were used to collect data.

The feminist perspective, views gender as one of the key foundations that the social world is structured and organized by. Basically, "This structure has granted women lower status and value, more limited access to valuable resources, and less autonomy and opportunity to make choices over their lives than it has granted men" (Sapiro, 1986, p. 441). The methodology of this study blended organizational anthropology and feminist frameworks. The design of the study was qualitative and the ethnographic techniques of interviewing and observation were used to collect data. Participants included eleven executive level women in Fortune 500 manufacturing companies who worked in their environments for at least five years. The women were described as "successful executives" in their respective organizations.

Observation was used to collect data prior to the interview where permitted. Observation was used to describe the executive women's workplaces, colleagues, and behaviors. In ideal conditions the observations were set to last one day, but this was an unrealistic expectation because the women were incredibly busy and dealt with a lot of confidential information that outsiders could not be privy to. In the five organizations where I was able to observe, the observation was usually done before or after the interview. Sometimes during the interview I was able to observe the women's behavior when they would have to respond to interruptions. The observations lasted anywhere from five minutes to two hours. I took field notes, both during and after the observation. I also recorded my observations, impressions, and reflections on my tape recorder while driving.

The interviews in this study were tape recorded on an audio cassette player and transcribed verbatim. The process was ongoing; that is, I transcribed each interview before conducting the next one, to ensure that the context of the discussion was preserved. I also recorded my impressions and observations from the interview. By making the data collection procedure an ongoing process, I stayed alerted to themes, questions I didn't ask, and other bits of information that helped shape the study.

Although the findings of this study may be inferred to describe the dynamics of functioning and developing in organizational culture for other groups, I studied women in corporate settings. I do not suggest that the findings are generalizable to the public at large, but that they describe the experiences of the participants.

### Findings

The purpose of the study was to understand how executive women developed and functioned within the context of white male-dominated organizational culture in the United States. The data collected from interviews and observations with eleven women executives were analyzed using the constant comparative method. Three major categories emerged from the data analysis. Executive women functioned and developed in organizational culture by: cultivating self-confidence, maximizing learning opportunities, and defining and negotiating organizational culture. The women defined organizational culture as a patriarchal system, and each category of findings shows how these strategies were used with respect to dealing with patriarchy. The aspects of cultivating self-confidence and maximizing learning opportunities are used as defenses against what the women define as patriarchal culture. Negotiation activities are used as strategies to excel in and change the culture.

The conclusions of this study work together to strengthen women's ability to develop and function in the organization. Developing and functioning effectively in corporate culture occurred as a developmental process for the women in this study. Three stages of functioning and developing in the culture occurred during the women's careers. The stages include: Acquiescence, Competence, and Influence. The model is shown in Figure 1.

Figure 1

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Model of Executive Women's Development in Organizational Culture

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ACQUIESCENCE

COMPÉTENCE

INFLUENCE

Briefly, acquiescence is characterized by passivity and submission to the dominant male culture. This stage appeared early in the women's careers. At this point, self confidence is low, organizational learning is just beginning, and the culture has not been defined. During acquiescence, the women were thankful to have a job in the organization and naively believed that they could advance by being silent and nice.

During the competence stage, the development of technical and professional competence was a primary objective of the women. They were inwardly focused on improving self-development and intellectual development. They maximized a variety of learning opportunities as a defense against functioning in a patriarchal environment. They began to develop confidence in this stage along with defining the culture. At this point, the women passively negotiated the culture, by not challenging the patriarchal system, but rather going peacefully along with it. The women moved toward active negotiation of the culture as they neared the next stage of development. Active negotiation involved direct challenges to the patriarchal system as well as acting as agents for change in the culture.

Influence is the last stage of development that these women experienced. All of them have influence in their organizations today. Influence was characterized by a high level of self-confidence and competence in the organization, and greater power in the organization. The women were outwardly focused which was evident in their helping of others and the organization to succeed. They used both passive and active negotiation strategies in the culture, with the women with the highest level of influence and ability to provoke change used active tactics.

### Conclusions and Discussion

Four conclusions were drawn about executive women's development and functioning in corporate culture. They include: 1) Executive women enhance their effectiveness in corporate culture by pursuing, maintaining, and renewing self-confidence; 2) Executive women flourish in organizations by employing a variety of learning strategies; 3) Executive women excel in the culture by defining and negotiating male-dominated corporate culture; and 4) The findings support a model of executive women's development in male-dominated organizational culture. The developmental model shares similarities with Belenky, stages of women's knowing.

### Implications for Theory and Practice

This study is significant because women continue to enter the workforce and move into positions of power and responsibility in organizations. It is in the organization's best interest, therefore, to attract, develop, and retain women. This study is important because it has contributed to the theoretical and practical bases of organizational anthropology, adult learning, human resources development, and organizational development.

This study advances the theoretical base of organizational anthropology through its adoption of the values and analytical techniques used by anthropologists to construct a sociocultural interpretation of organizational experience. Organizational anthropology is gaining momentum as a method of solving cultural business problems (Laabs, 1992; Garza, 1991). This perspective offers a more holistic view of organizational phenomenon by seeking to understand it through a cultural lens. Using anthropological techniques such as observing and interviewing "native" organizational women about their experiences

improved the understanding of how women both conceptualize culture and learn to function within it.

The practical application of these findings for organizational anthropology is that they shed light on how subordinate newcomers (women in male-dominated culture) define organizational culture. To promote cultural learning, organizations should consider assigning peer mentors to new hires. Such helpers could share clues about the culture that would be both helpful in defining and negotiating it. The developmental stages that women experienced while developing and functioning in organizational culture have implications for how people may interact with other cultures in which they have little or no experience. This is important because the rites and rituals of organizations are not apparent to newcomers. The importance of understanding and defining corporate culture is reinforced in the literature. This study expands the importance of understanding the culture because it impacts how women maneuver in it. Additionally, this study has defined corporate culture as a patriarchal system that provides unequal rewards and treatment to women.

The study also advances adult learning theory by illuminating how executive women developed and functioned in organizational culture. This study also revealed how women's learning might be facilitated in corporate culture. Such a perspective is important since previous emphases have been on white male experience and learning in organizations. Although such a viewpoint is important, it does not address the changing demographics of the workforce or the new problems and issues such diversity brings to organizational development. Finally, the developmental model of how women learn to develop and function in organizational culture has implications for adult females who are entering corporate settings. This should be taken into account when initiating new female employees into the culture and providing training and development.

Human resources development theory advances through this study as it defines how to better attract and retain one of the largest growing segments of the workforce--women. Such information is valuable to researchers, students, and practitioners alike, in the quest to develop qualified workforces with a shrinking labor pool from which to draw talent. Often, less emphasis is placed on developing female talent, favoring instead, locating existing male talent, both internal and external to the organization. To compete in a global environment with a shrinking workforce, companies are compelled to develop diverse human resources. Strategies for conducting such development have been identified by this study. They include understanding how women develop self-confidence, appreciating that women learn through cognitive, experiential and collaborative techniques, recognizing that women define and negotiate corporate culture, and acknowledging that women experience stages of development as they learn how to function and develop in corporate culture.

The amount of learning that occurs through other people is extensive. Because of this, it is critical that human resources development processes facilitate opportunities for women to learn with others. Ways this can be accomplished are through mentoring and networks. By ensuring that women have at least one mentor, the risk of them not receiving the guidance they need and subsequently leaving the organization or failing in it can be minimized. Women must also take action in securing mentors rather than waiting for their companies to begin formal mentoring programs. In addition to providing traditional mentors, a peer mentoring process has merit, particularly for learning about the culture. These findings reinforce the importance of women seeking mentors and companies developing or strengthening mentoring programs. Training of mentees and mentors is also in order. Companies performance management process is another opportunity for structured mentoring to occur. Corporations need to explore these avenues for mentoring to increase the development and retention of women. Developing networks is valuable also, because networks can pool resources, establish common causes and solutions for problems in the organization (e. g., retention of minorities and women). Networks can also provide feedback to management from the population that they represent. The findings point toward the importance of sponsoring networks. Networks also offer peer support. Networks are growing in popularity with the changing demographics of the workforce. Human resources developers must assess their organizations with respect

to issues of diversity to define whether problems exist, and if they do, determine what proactive measures should be taken.

Finally, action learning as a means of taking workplace experiences and reflecting on them has an important role in human resources development today. It helps both individuals and groups question social norms governing their actions and increases understanding about how meanings are created. This human resources development method is an excellent way of helping executive women understand organizational culture, its assumptions, how they define it, and how they negotiate it.

Organizational development theory benefits from this study, as well, in that it provides a scan of the current corporate environment for women in the United States, and allows us to anticipate how to help women excel in corporate culture. One of these changes is the increasing number of women populating the executive ranks. Because women's underclass status in organizations is not an individual issue, but rather a sociocultural one, organizations must become more aware of how these social systems are created, perpetuated, and changed. Once we understand the social systems that perpetuate the "good-old-boys' network," the glass ceiling phenomenon, and sexual harassment, organizations can better respond through organizational planning, creating mentoring networks, and working to provide meaningful and challenging assignments for women.

The practical significance of this study is to equip organizations to respond to the changing demographics of the US which are dramatically impacting the workplace. Corporations are contending with diversity issues which were virtually unanticipated two decades ago. The US economy is in distress, and the only way that organizations can respond competitively, is to maximize their use of available human resources. This can be accomplished by providing formal learning experiences that fit women's learning and development styles.

If only white men are accepted into the executive ranks, the corporate male incumbents will not represent the larger, more diverse population. There is an additional risk that these elite few will be unable to relate to customers or employees causing a risk of diminishing market share and human resources difficulties, respectively. Legislation exists as well, further compelling organizations to provide equal opportunity employment; rights which are guaranteed and enforced by the Equal Employment Opportunity Commission (EEOC). Morrison and Von Glinow (1990), in a literature review on women and minorities in management suggest that "With the demographic changes already taking place in the US labor force, restricting the pool of potential candidates to white men only is foolhardy. Achieving diversity in management requires action. Continued research will help ensure that effective action is taken" (p. 206). The next section will make suggestions for future research.

#### **Recommendations for Future Research**

While this study has answered some of the questions about how executive women function and develop in corporate culture, it raises more questions than it answers. I recommend that this study be expanded and varied to explore a number of questions. Addressing these questions is relevant with respect to different populations and organizations, methodology, and adult education and human resources development interests. This study focused on executive women and their experiences in corporate cultures. I recommend that the question of how people function and develop in organizational culture be expanded to include men and minority groups in Fortune 500 corporations. An exploration of international companies and how employees develop and function in different cultures would also provide valuable insight to a world economy that becomes more globalized daily. For instance, we might want to study how a manager from the United States functions and develops in an organizational culture in Mexico or France or vice versa.

It would also be worthwhile to explore the development and functioning of

employees in the organizational cultures of different industries such as: service, non-profit, education, government, small business, high-technology, and highly innovative organizations. Again such inquiry should not be limited to the United States. An international comparison would provide useful insight to globalizing businesses.

I also recommend a study of women-owned companies, or corporations that have a female CEO. Important questions to investigate include, What kind of culture do women create? Do they support traditionally patriarchal structures of organizing and leading businesses? Are women-created organizations more utilitarian? How do other employees function and develop in women-led organizations? What career life-cycles exist in such organizations? How is the culture defined and negotiated? In addition, it would be valuable to investigate whether the consequences of informal and incidental learning, such as making false assumptions, differ on the basis of gender, race, education, and level in the organization.

This study can be expanded to test the model of executive women's development as proposed by this study. Since this study involved eleven executive women in Fortune 500 companies, the findings pertain to them, not the general population. The findings could be tested on other populations. Important too, is to learn whether or not the continuum of women's development moves beyond the stage of "influence" to positions of greater power in organizations.

The methodology for future studies should involve more observation of women in their natural work environments. An ethnography of one organization to understand how women function and develop may yield in-depth information about how the same culture is conceptualized and negotiated by different individuals. Such a study could easily be expanded to include men and minorities. Questions guiding it might include: How do diverse employees function and develop in the same organizational culture? What models of development do participants use to function and develop in organizational culture? How do employees define culture? How do negotiating strategies differ among diverse employees in the same organization? Because this study was limited to executive women in Fortune 500 companies, the developmental model may or may not be generalizable. The model should be further tested and explored in research. Potential studies might inquire as to whether the same developmental model occurs for women who are not executives. Again, understanding other diverse populations in both this country and abroad would provide valuable information for facilitating the development of employees.

The study raises other interesting questions that should be explored further. For instance: How do women cultivate self-confidence in their work and personal lives? This has important implications for helping women balance the seemingly impossible demands of working full-time as both businesswoman and parent. How is critical reflection used to develop self-confidence? Delving further into women's learning in organizational culture will only enhance educators' ability to prepare women for working in corporate environments. A study exploring their learning processes in greater depth to understand how women use critical reflection to learn about the culture, or how they learn through experience is recommended. Further studies should be done on the process and benefits of mentoring and networking. The collaborative ways women learn in organizations should be further compared and contrasted to the connected knowing proposed by Belenky, Clinchy, Goldberger, and Tarule (1986). Because this study points out the importance of informal learning for women in respect to understanding culture, an exploration of how people, particularly women, learn culture would be valuable. Further, how do subcultures help women function and develop in organizational culture? What implication does learning from subcultures have for organizational anthropology and human resources development? How do women function and develop in women-owned or led organizations? Does a woman's management style have an impact on how employees develop within the culture?

This study benefits adult education and human resources development practices as we better understand how to attract and retain one of the largest growing segments of the workforce--women. Such information is valuable to researchers, students, and

practitioners alike, in the quest to develop qualified workforces with a shrinking labor pool from which to draw talent. To compete in a global environment with a shrinking workforce, companies are compelled to develop diverse human resources. Strategies for conducting such developments were identified by this study.

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## Union Leaders' Attitudes Towards Responsibilities for Training

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### Problem Addressed by the Research

Within our society, unions have a long history of involvement in training (Ferman, Hoyman, Cutcher-Gershenfeld, & Savoie, 1990). Currently, the potential impact of training issues on union contract negotiations is symbolized with a statement by Lane Kirkland, President of the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO). He stated "that unions will be going to the bargaining table to negotiate learning programs and learning time along with work time" (Perlman & Kane, 1986, p.6). Continuing this emphasis, in 1992 the AFL-CIO featured training as one of four major policy recommendations (American Federation of Labor and Congress of Industrial Organizations, 1992).

Despite the emphasis by unions on training, little research has focused on the attitudes of union leaders toward employee training issues. Therefore, the purpose of this study was to determine union leaders' attitudes toward the role of unions and management in making decisions about worker training and the inclusion of training issues in union contracts. To accomplish the purpose of this descriptive study, five research questions were addressed and are set forth in the findings section.

### Methodology

Blue collar union leaders from the United Steel Workers of America (USWA) provided the sample for this study ( $N = 225$ ). Data for the study was gathered while these leaders attended a week long "Steel Workers Leadership School" at a large southeastern university. The leadership school was for District 35 of the USWA; an affiliate of the AFL-CIO. Of those present at the conference, 164 voluntarily responded to the questionnaire for a return rate of 73 percent.

Women comprised approximately 15% of those responding. Overall, blue collar females account for roughly 30% of the 200,000 employees covered by bargaining agreements in the southeast district. Nearly 10% of the women and 24% of the males responding were minorities. The work environments of those attending the conference included steel products, aluminum products, vegetable packing, shipping, fertilizer products, yard and garden products, and hospital and nursing homes.

A 45 item questionnaire with five nominal response levels was the only data collection device. The district director for the USWA discussed this study in a general kick-off meeting and encouraged all attending to participate in the research. The questionnaire was distributed the second day of the leadership school.

This questionnaire was developed specifically for this application. Prior to its use in this study items were developed based on a review of the literature. The resulting questionnaire was then reviewed by three subject matter experts, several union officials, pilot tested with this same group of respondents during a previous leadership school, and lastly the reading level was assessed to insure that it was appropriate for the sample. Items designed to measure the role of union leaders in making decisions about training issues at the company were measured with response choices that included (a) this task is not necessary, (b) role of local union leaders, (c) role of the company, (d) joint role of local union leaders and the company, and (e) role of union leaders at the district or national level. Items designed to measure union leaders' attitudes towards training issues in union contracts were measured with response choices that included (a) in the contract and adequate, (b) in the contract and needs improvement, (c) not sure if this is in the contract, (d) not in the contract but needed, and (e) not needed in the union contract.

## Findings

In general about 50% of the respondents felt company sponsored training failed to meet their needs. Further they felt that 71% of the managers at their company did not exhibit an adequate concern for training. Following is a summary of the major responses for each research question. Refer to Tables 1 and 2 for a summary of the responses to questionnaire items.

### Research question one: What joint role do union leaders expect to take in making decisions about worker training?

For this question, respondents indicated that the company and the union should jointly initiate a labor-management task force on training and determine if training helps employees improve as a person. They also felt that both parties should be involved in changes in seniority rules for selecting workers for training and the establishment of training priorities for employees.

### Research question two: What role do union leaders expect management to take in making decisions about worker training?

Here, respondents indicated that the company should determine how much and how training is given, if training helps employees perform better on the job, the cost effectiveness of training, and the effects of training on productivity or quality. Respondents also felt that the company should provide training that expands the job skills of workers, fund all employee training, fund a labor-management training committee, seek government funding for training, maintain work place educational activities, help employees learn about new technology, and establish the company training budget.

### Research question three: On what issues are the union leaders split over whether the company alone, or the union and the company jointly assume responsibility?

Respondents were split on five issues. These were (a) determination of training needs (b) initiation of worker participation in training planning, (c) initiation of changes in work rules to try out new technology, (d) assessment of the quality of training programs, and (e) initiation of apprenticeship programs. For the first three items, slightly more of the respondents felt these issues should be a joint role. For the last two items, slightly more felt these were the sole responsibility of the company.

### Research question four: What is the role of district or national union leaders in making decisions about training issues?

Basically, these respondents did not see district or national union leaders as having any role in making decisions about training issues.

### Research question five: What training issues do union leaders think should be addressed in labor contracts?

On these issues, a majority of the respondents believed that the union contract should be improved to include worker or union input on training needs assessment, priorities, instructional methods, content, and evaluation. Respondents also indicated a need for company contributions to a specific training fund, a joint labor management training committee, union input into the company training budget, and requirements that the company keep the union informed of training plans. Respondents also wanted union contracts to require worker training in problem solving, team membership, team leadership, and quality improvement. When asked to prioritize these issues the top six were (a) a joint labor management training committee, (b) input on training priorities, (c) specific training on quality improvements, (d) worker or union input on training needs assessment, (e) company contributions to a specific training fund, and (f) requirements that the company keep the union informed of training plans. Only 49.7% (N = 112) of those attending the conference prioritized these issues.

**Research question six: What training issues do union leaders think should not be addressed in labor contracts?**

A majority of the respondents felt that union contracts should not require a payroll deduction of worker earnings for a training fund. When asked to choose three issues that definitely should not be included in union contract negotiations, the respondents chose (a) payroll deduction of worker earnings for a training fund, (b) diverting a portion of a negotiated wage increase into a training fund, and (c) selection of workers for training on a basis other than seniority. Only 42.7% (N = 96) rated these items.

**Conclusions and Contribution to knowledge**

Based on the responses to the five research questions, it appears these union leaders expect wholesale delegation of training to management. This is surprising considering the USWA is affiliated with the AFL-CIO which has a strong proactive position on training. Delegation of training decisions to management and also the expectations that only the company shoulder training costs is antithetical with the practices of other unions in the northeast, upper midwest, and west (Ferman, Hoyman, Cutcher-Gershenfeld, & Savoie, 1990). Unless these leaders are willing to assume some of the responsibility and costs for training, it is unlikely they will obtain concessions at the bargaining table.

Another surprising result is the almost nonexistent role these leaders expect from district or national union leaders on training decisions. Generally, national leaders make policy decisions to be carried through at local level contracts. For the USWA leaders, there is a definite gap between policies on training through the AFL-CIO and attitudes at the local level.

Several issues emerge from this study that necessitate future research on unions and training. These include but are not limited to (a) what will it take for these leaders to adopt a more integrative view of the bargaining process, (b) do different types of union leaders and employees view training as more important; for example younger/older workers, males/females, whites/minorities, or skilled/unskilled workers, (c) what effect does bargaining unit size have on attitudes toward training, and (d) is there a relationship between economic conditions in a geographic region and union leaders' attitudes towards training.

Many currently renegotiated union contracts include lower pay increases than past contracts. To compensate for smaller pay increases, many previously unaddressed issues are now negotiated into union contracts. Employee training is one of these issues. Little research exists that describes union leaders' attitudes toward training issues. This research helps to fill that void and bring forth other issues for future research.

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Table 1  
Summary of Responses to Questions Concerning the Role of Union Leaders in Making Decisions About Training Issues at the Company

Question	N	Percent of Responses				
		Not Necessary	Role of Local Union Leaders	Role of Company	Joint Role	District/National Union Role
<b>Who is responsible for determining:</b>						
a. training needs	164	.6	6.1	43.3	48.2	1.8
b. how much training is given	164	3.0	4.9	56.1	34.1	1.8
c. how training is delivered	164	3.0	11.6	43.3	39.6	2.4
d. quality of training	164	1.8	6.1	50.6	40.2	1.2
e. performance improvement from training	164	2.4	4.9	50.0	40.9	1.8
f. personal growth from training	163	13.5	8.0	35.0	41.1	2.5
g. productivity improvements from training	163	2.5	4.8	58.9	34.4	0
h. quality improvements from training	163	1.8	3.7	58.3	35.0	1.2
i. training budget	163	2.5	1.2	82.8	12.9	.6
j. training priorities	163	2.5	7.4	45.4	44.2	.6
k. training cost effectiveness	160	4.4	3.8	67.5	21.3	3.1
<b>Who is responsible for initiating:</b>						
l. government funding for training	161	26.7	1.9	47.8	14.3	9.3
m. worker participation in training planning	163	3.7	18.4	36.8	40.5	.6
n. labor management training task force	164	7.9	11.6	29.9	43.9	7.7
o. work rule changes for new technology	163	5.5	2.5	43.6	46.6	1.8
p. loosening of seniority rules when selecting workers for training	160	20.9	9.4	18.1	45.0	6.9
q. apprenticeship programs	162	7.4	6.2	44.4	39.5	2.5
<b>Who is responsible for providing:</b>						
r. training to expand job skills	163	4.3	4.3	63.2	26.4	1.8
s. funding for labor-management training committee	164	12.2	7.3	52.4	20.7	7.3
t. funding for worker training	163	4.9	1.8	78.5	11.0	3.7
u. work place educ. activities	164	6.1	5.5	53.0	34.8	.6
v. help to workers in learning new technology	163	2.5	4.9	52.1	38.0	2.5

Table 2  
 Summary of Responses to Questions Concerning Training Issues in Union Contracts

Question	N	Percent of Responses				
		In Contract Adequate	In Contract Needs Improvement	Not Sure If In Contract	Not In Contract But Needed	Not Needed
<b>Contract should require worker or union input on:</b>						
a. needs assessment	164	12.8	13.5	15.9	54.3	3.7
b. instructional methods	164	8.5	15.2	15.2	56.1	4.9
c. training content	164	8.5	16.5	10.4	59.8	4.9
d. training evaluation	164	9.8	19.5	11.0	53.7	6.1
e. company training budget	158	7.0	6.3	15.8	55.7	15.2
f. training priorities	157	10.8	18.5	11.5	52.9	6.4
<b>Contract should require worker training on:</b>						
g. problem solving	158	5.7	14.6	10.8	60.8	8.2
h. team membership	157	3.8	10.8	13.4	54.8	17.2
i. team leadership	158	3.8	13.9	10.8	53.8	17.7
j. quality improvement	158	7.0	15.8	13.3	50.6	13.3
<b>Contract should require company:</b>						
k. contributions to training fund	158	11.4	9.5	13.3	51.3	14.6
l. keep union informed of training plans	158	20.3	22.2	10.1	44.3	3.2
m. conduct needs assessment	158	5.1	12.7	18.4	55.1	8.9
<b>Contract should require:</b>						
n. specific technical training	164	17.7	28.7	15.2	34.1	4.3
o. general skill building	164	12.8	30.5	14.6	37.2	4.9
p. portion of wage increase to training fund	163	3.7	6.7	13.5	36.2	39.9
q. payroll deduction from workers for training fund	163	3.7	3.1	11.7	17.2	64.4
r. relaxed work rules when experimenting with new methods and machinery	158	7.6	20.9	13.9	33.5	24.1
s. selection of workers for training on basis other than seniority	157	12.2	31.8	11.5	17.8	26.8
t. joint labor management training committee	158	13.3	15.2	12.7	54.4	4.4

## QUALITY SHOCK: CROSS-FUNCTIONAL COMMITMENT AT MOTOROLA

Larry D. Browning  
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Faced with an unexpected emergency, "correct these 19 quality problems in six months or you'll be desourced on a Multi-million dollar contract," a senior executive at Motorola grew a cross-functional team, which not only solved the 19 problems, but generated new business from U.S. Motors (a pseudonym) the disgruntled customer. This dramatic transformation occurred because the team created a commitment machine. The machine took the form of a monthly cross-functional team meeting where professionals throughout the company learned how to turn an operations review into an action incubator where decisions were set in motion. "There are probably 100 meetings every month spun off of this formal meeting. That is where people learn to be team players." (The direct quotes in this article are from cross-functional team members. They have been edited for clarity and brevity.)

Our analysis suggests that the success of this team is due in large part to their understanding of a neglected truth about commitment. Their rediscovery of this truth gave them a competitive advantage. This story relates how they responded to the customer's criticism and offers quantitative data from the team to verify our findings.

### The context of the quality shock

The climate of success in Motorola prior to the emergency invited the shock. Motorola had launched a quality initiative in the early eighties that by 1988 produced a multi-year trend of continuous quality improvement and customer satisfaction. As a result, Motorola remains the first and only large firm to win the Malcolm Baldrige National Quality Award for all its divisions. In addition to winning the Baldrige Award, Motorola also won the Dataquest Award. This industry survey of 200 accounts confirmed three years in a row that Motorola was Number One in customer satisfaction, exceptionally outperforming its nearest competitor. At the time of the pivotal meeting with U.S. Motors, there was no reason to suspect a serious problem, since all of Motorola's surveys confirmed high performance and satisfied customers.

### The Quality Confrontation

Because of their prior success, Motorola's preparation in 1987 for the biannual U.S. Motors executive review was relaxed: "We traipsed up there with half-a-dozen vice presidents and another half-a-dozen assorted people and made presentations that suggested that we had good corporate quality policies, that we had good corporate management, and that we had lots of programs."

The U.S. Motors representatives listened patiently, and then it was their turn. U.S. Motors managers briefed Motorola on the results of a recently completed off-site meeting of 25 of their people. These results centered on a list of strengths and weaknesses that U.S. Motors people saw in the quality of the product and service from Motorola. The leading positives were vague statements such as: Motorola was a "A multi-national company" or Motorola is a "broad-base product supplier." The heart of the briefing was the specific list of 19 weaknesses (See figure one; \* note: one item was deleted by Motorola during review).

The list took on added importance when, at the end of the U.S. Motors presentation, a new U.S. Motors purchasing manager gave Motorola an ultimatum: if they did not make substantial progress on these 19 weaknesses within 6 months, U.S. Motors would begin to desource them, ending a contract between U.S. Motors and Motorola that was worth millions of dollars in business a year.

Typical of any shock, the first response by Motorola professionals was denial and defensiveness. They fumed that the 19-item list was unfair. Complaints such as "Not customer driven fueled the defensiveness through several meetings until they began to collect data to rebut U.S. Motors' objections. To their horror, they discovered that the record of on-time delivery ranged between 50% and 60% and that quality problems had

crept up. The data showed that U.S. Motors was right. Despite the quality awards, corporate pride, and participative management, Motorola's task force realized that they were in trouble and that the only thing to do was to create a structure to solve the 19 problems.

Although U.S. Motors had placed severe demands on Motorola, U.S. Motors had also said, that if the company dealt with the 19 problems, the threat of desourcing would be withdrawn. Thus, U.S. Motors created three inducements for change.<sup>1</sup> They provided data (the list of 19 problems); they provided support (solve those problems and the contract will be continued); and they provided pressure (no solutions, no contract). So, while the list was a form of threat, it was also an invitation, an assurance, and a map. Viewed as an invitation and a map for improvement, the criticism became an opportunity: "This customer had written down exactly what he hated about us, and all we had to do was fix each one of those things. Then, if we would turn those around, they would become a list of positives." This event was a moment of truth for Motorola: how close to the customer do you want to get? Was the company willing to interpret quality the same way the customer did? Motorola answered "yes", accepted U.S. Motors' view and began to tackle the items on the list.

#### Weak commitment leads to dense communication

The first of the 19 items on U.S. Motors' list said, "Management commitment (is) weak." To reverse this judgment, Ed Jefferson (a pseudonym), a high-level Motorola manager responsible for the U.S. Motors business, took charge and rapidly assembled a group of 35-50 people to deal with the list. In his words, "Why not try an experiment to solve this problem? Why not get people from every aspect of the corporation to join in a team and address these issues? So, we called around and asked if the other big groups would agree to have representation on a big task force."

A structure of the kind Jefferson proposed was unusual at Motorola, which was more accustomed to small, within-function teams.<sup>2</sup> When a more diverse set of groups agreed to send representatives to Jefferson's "task force," this immediately created contact at several levels for the customer. In the words of one representative, "One of U.S. Motors' biggest complaints was poor management commitment. We started a regimen of steady visits from people at my level, the factory people, and all the way up to Ed's level."

The resulting contacts created a dense and multi-layered system of communication across all levels within Motorola, across similar levels of U.S. Motors and Motorola, and through both firms diagonally. Motorola responded to weak commitment by creating a dense communication system. When team members began to explain and extol the value of this communication system, these explanations proved to be persuasive, both to themselves and to others. As a result, the members became more committed to their earlier actions of joining and communicating. The fact that this change from a thin communication system to a dense system had been public, explicit, irrevocable, and voluntary only intensified their feelings of responsibility and enthusiasm for the new system. It became easier to defend the system passionately.

This sequence in which people first took action and then invested that action with more meaning, foreshadowed the commitment machine that was emerging. As we will see, this same pattern of action, responsibility, and justification, was to be repeated again and again, each time producing quality initiatives that made a difference.<sup>3</sup>

#### Dense communication leads to strong commitment

There were two significant events in the early stages of the Motorola team. First, Ed Jefferson chose to make the U.S. Motors' problem his problem. Second, he enticed 50 other professionals to do the same thing. What is crucial here is that none of these

<sup>1</sup> Kaplan, R.E., (1990). "Character change in executives as 'reform' in the pursuit of self-worth." *Journal of Applied Behavioral Science*, 26, 461-481.

<sup>2</sup> For a complementary view of Motorola's extensive use of teams -- corporate wide, see: Hill, G.C. & Yamada, K., "Staying Power: Motorola illustrates how an aged giant can remain vibrant." *Wall Street Journal*, December 9, 1992, 1 & 13.

<sup>3</sup> Weick, K.E., (1979). *The Social Psychology of Organizing*. Redding, MA: Addison-Wesley.

people were committed before they joined the team. They, like the management which U.S. Motors fingered in the first complaint on the list, had "weak commitments." But that changed. And it changed because of the unusual style of operation that quickly evolved on the team. We need to digress for a moment to provide some background about why this style of operation is so noteworthy.

Our common sense understanding of commitment says that people first develop strong commitments, and then they take actions which are consistent with those commitments. A committed Motorola employee might give up six weekends in a row to meet with the U.S. Motors cross-functional team, because he or she thinks Motorola is a good firm to work for.

That seems straightforward. Except, where did that commitment come from in the first place? This is where common sense draws a blank. The reason is simple. Commitments don't occur before people act. They come after people act.

Thus to return to the committed Motorola employee, what actually happens is that this person first gives up several weekends to meet with the team. And then, as this person looks back over this behavior and tries to make some sense of it, the most likely explanation is a statement that sounds very much like commitment: I come in on weekends because Motorola is worth this investment of time and effort.

Commitments materialize when people feel compelled to find reasons for actions they have already taken. And they feel more compelled to come up with reasons when they feel more personal responsibility for specific actions. And they are likely to feel more responsibility for those of their specific actions which are more public, explicit, irrevocable, and voluntary.<sup>4</sup> And that sequence is what Ed Jefferson triggered when he orchestrated a quick, large, vigorous response to the U.S. Motors complaints.

As the group began to form, it rapidly created all four conditions that make people feel more responsible for what they do. Because the group was large and members came from all over the firm, simple actions like attendance and volunteering were well publicized. Because the problems to be solved were already specified, actions to deal with them were explicit. Because the deadlines for solutions were tight, allocations of people to problems were irrevocable. And because people could say "no" when Jefferson asked them to join, their participation was voluntary.

Thus, conditions were right for people to take responsibility for what they did and search for good reasons to explain why they acted this way. And this has remained true throughout the life of the team. The staging of most events in the cross-functional team increased rather than decreased personal responsibility. That's why we have referred to this team as a commitment machine. It rapidly developed a style of operation where people stuck to their assignments for good reasons and came back with solutions. The style perpetuated itself when people built replicas of the machine in their contacts away from the team.

What is fascinating is that none of this was done deliberately, at least not at first. Instead, several mundane activities on the team, activities like asking questions, showing transparencies, and climbing onto airplanes, got strung together in such a way that they became public, explicit, irrevocable, and voluntary; and well-reasoned; and pursued with tenacity. People became committed to what they did and who they did it for, both of which increased the impact of the team itself. We want to take a closer look at each of the four factors that produced commitment in the Motorola team, because they involve tools that are available in all firms. Even though these tools of commitment are commonplace, their impact is often undermined by contradictory leadership styles and group norms. What is notable about the Motorola experience is that the factors that produce commitment were reinforced both by Jefferson's leadership style and by the way in which the team itself functioned. This will become clearer as we examine Motorola's response to U.S. Motors in more detail.

### Explicit communication

The dense communications among members of the Motorola team often take place through the medium of overhead transparencies. A typical team meeting

<sup>4</sup>Goodman, P.S., Ravvlin, E. & Schminke, M. (1987). "Understanding groups in organizations." *Research in Organizational Behavior*, 9, 121-173.

consumes on the average of 45 transparencies, each having on average 72 data points, which means people repeatedly see themselves and the results of their actions, stripped of pretensions. The transparencies, with their explicit news about performance in the previous month, leave few doubts about who has taken which actions with what results. This explicitness sets the stage for committing the person who generated the data points to improvements during the next period. Furthermore, the transparency becomes a stand-in for the person after the team disperses. Transparencies are used to show people who were not at the meeting, what those who were, are doing. In effect, this serves as an instant replay of the original meeting, and a wider circle of people are included in it.

Transparencies are not the only vehicle of explicit communication on the team, although they are the best example of it. Actions become more explicit when people promise to do something by a specific time, and others adjust their projects and deadline as if the promised event had already come to pass. The explicit promise becomes indistinguishable from the action itself. And the same dynamics that bind people to actions, bind people to promises. And when people justify the promises for which they are responsible, the promise is as good as accomplished.

This is not some kind of miraculous outcome. It is simply what happens when responsibility for action draws out good reasons for why the action was done in the first place.

### Public communication

Action in the cross-functional team meetings was public. Up to 50 people met monthly at rotating sites. Conference calls supplemented the meetings. U.S. Motors representatives attended many of these meetings making the team members' actions even more public.

The public meetings were also a place to gain an integrated view of how the U.S. Motors/Motorola interface worked. "The cross-functional team creates a wider understanding of progress and failures in all aspects of the business. This is especially helpful for newcomers. This meeting every month just re-establishes those ties and relationships." Direct monthly contact at the engineering level created a continuous relationship for problem solving and learning from each other.

Publicness is visible in the extent to which outsiders are welcome at the meeting. Outsiders such as people from Relatec Corporation (a pseudonym) sat in at the invitation of the leader to see how the meetings were conducted. When a problem proves to be stubborn, "fresh eyes" (read: additional visibility) were added to the group. The more embarrassing the problem, the more likely they were to seek help for it. "There was a lot of time spent dialoguing and taking apart people's problems and looking at them from inside out."

What gives us even more faith in our analysis, is an unusual custom which has evolved on the team to deal with problems that are especially stubborn. When the agenda gets stalled by puzzling data that resist explanation, a temporary group is recruited to take the data away from the meeting "to the woodshed," and explain them. The group physically leaves the meeting and comes back when the problem is solved.

The wisdom of this tactic should be evident by now. The woodshed weakens the forces that compel people to justify what they do. While the assignment itself is explicit, what the people do in the woodshed is private rather than public. What they do is also revocable because any solution they bring back to the larger meeting can be modified. And finally, since they are appointed to go, their work on the problem is not completely voluntary. People feel less necessity to explain commitments when they go to the woodshed, which means they are better able to brainstorm with abandon. After the low commitment (creative) interlude in the woodshed, the final interpretation, which the team at the large meeting chooses to adopt for the puzzling data, occurs again in a setting where pressures toward commitment are higher. Thus, the final interpretation becomes the official interpretation, and has some bite until it is reviewed at the next meeting.

### Voluntary communication

The downfall of many commitment machines is choice. In hierarchical systems of authority, superiors give orders, subordinates follow orders, and choice drifts from the bottom of the hierarchy to the top.

That didn't happen in the Motorola team. It didn't happen because status differences are ignored when people meet as a team and give orders to themselves. Listen to some examples.

An engineer continued his commitment to the team even though his job transfer made him less central to their work. "I made one move since I've been on the team. It was an interesting thing. I was a representative to a different business unit. When I changed jobs, the representative of this new division was not totally supportive. Well, he was totally supportive, but he was not a regular attendee. Knowing my background, I kept going and assumed that I was the new representative. I was never chartered with that task, I just accepted it by my own choice."

Jefferson saw how crucial choice was, "It is difficult to inspire some of the people to do what they're doing because it is not part of their day-to-day responsibility. One of the aspects of this team's success is the willingness to be chartered to go do something that is really not your daily responsibility; that's not in your job description." A ranking by the team in a later stage of this research project shows this to be the most important feature of the team. (See Sidebar 1.)

Members chose to spend their time away from the regular assignments, to work with the cross-functional team. "I was in Detroit for several days. There was probably close to a week's time that I did nothing for my "real" job, as we call it. I think the reason why I enjoy being part of the team, is that I am recognized within my division now as the U.S. Motors guy."

Team members chose to spend time at meetings, chose to do things not in their job description, chose to live by U.S. Motors' standards rather than other ones they might prefer, chose to share rather than hoard away information, and chose to leave the team when the demands become too intense. "The requirements of U.S. Motors are sometimes perceived as being ridiculous. Then, the ridiculous turns into reality, and the reality turns into are you going to hustle to the challenge or get the heck out?" If people know they can leave the team, and if they see occasional members leave, this is a chronic reminder that the choice to stay on the team remains theirs. It is this pervasive backdrop of choice which binds people to what they do in this team.

#### Sidebar 1<sup>5</sup>

OBJECTIVE	SUB-OBJECTIVE	Rank	Mean	Std. Dev.
Create commitment outside of authority.	Develop shared outcomes with people over whom you have no direct authority (i.e., the factory and sales relationship).	1	1.8	1.2
	Surface and align individual motivations.	2	2.6	1.3
	Notice the CFT as a lever for reputation.	4	4.2	1.0
	Focus on problems between (rather than within) entities.	3(tie)	3.1	1.2
	Public, synchronous information creates swarming effect for action.	3(tie)	3.1	1.3

### Irrevocable communication

While it is relatively easy for actions to be made more explicit, public, and voluntary, the same cannot be said for irrevocability. The repeated calls for

<sup>5</sup>These items for rank ordering were generated by Christopher M. Avery, Ph.D. of Partnerworks Incorporated and Jeremie Hill Gray, Ph.D. of Motorola. For a copy of the rank orderings by the cross-functional team, contact Partnerworks Incorporated, 8920 Business Park Drive, Suite 280, Austin, Texas 78759-7405; telephone: (512) 454-1999; fax: (512) 454-2290.

"accountability" bear witness to the relative ease with which people can disown outcomes, shift blame, undo their actions, or simply walk away from the problem. People get much more serious about explaining why they did what they did when they can't retract it.

This lesson was not lost on the Motorola team. What's interesting are the subtle ways in which actions were rendered irrevocable. Two comments make it clear how irrevocability was created:

1. "More extensive use of quantitative measures of performance made faulty actions harder to deny."
2. "This meeting can highlight individuals in a very positive or negative fashion."

Notice that we are back again to the mundane reality of transparencies and meetings, with the added twist that we now see the way in which both of them serve to heighten responsibility and stimulate reasoning.

When people leave a monthly team meeting, they typically leave with things to do. The most common assignment is to visit someone who has a complaint and deal with it. When people travel to solve a customer's complaint, the visit is irrevocable. Furthermore, it is next to impossible to hide behind the excuse, "I didn't realize there was a problem." As a result, people tend to justify trips and have good reasons why trips and times with customers are good investments.

When the team spends money, members feel pressure to justify the expenditures. "We will pick up 20 members and fly them from Phoenix to Austin for this meeting, or 20 and fly them from Austin to Phoenix for this meeting. It is not a cheap process. That is a reaffirmation of the importance of the team meeting."

Top management, which agrees to Jefferson's request that 20 people be pulled off their regular assignments and flown to a meeting two hours away, look back over their own approval and infer from it that they must think these team meetings are important. As a result, they, as well as the team members, feel more responsibility for what happens.

The point here is not that any of these people are kidding themselves. Instead, the point is simply that people pay close attention to those things they do for which they feel strong responsibility. One contributor to a feeling of responsibility is action, such as approving air travel, which has never been retracted. Actions which cannot be retracted tend to be given closer attention than do those which can be. As a result, irrevocable actions tend to be understood more fully and explained by a richer set of reasons. This has nothing to do with defensiveness. Instead, it is simply what happens when the scarce resource of attention is focused on a specific topic.

As a final example of irrevocability, Max Davis (a pseudonym), the team co-leader spends the first 45 minutes of each team meeting recognizing individual performance on the U.S. Motors account. Davis praises exemplary actions such as flying with a part to a customer so the line won't go down. He hands out awards for these actions and rewards similar heroism at the next meeting.

These awards are irrevocable displays of what matters to the team leaders. Once an action and a person is singled out for praise, this action cannot be retracted any more easily than can a face-to-face visit. Having made the irrevocable reward, both the leader and recipient are more inclined to search out the reasons why it makes sense, than the reasons why it does not.

#### How the pieces fit together

Our discussion of the four conditions that encourage people to take responsibility for their actions, suggests that each of these four bubbled up at Motorola in a somewhat haphazard fashion. It may look like it was rare for all four to be activated at the same time. Normally, this is true in most formal, hierarchical organizations and that is why sustained commitment is relatively uncommon.

What we find striking about the Motorola story is that all four conditions for commitment were there right from the beginning. Furthermore, the culture, routines, and

leadership style that evolved within the team, consistently made these four conditions salient and influential.

Consider first how the team got started. No one forced Jefferson to take charge of Motorola's response to U.S. Motors' complaints. Instead, the choice was his. He chose his own level of involvement. He chose the initial participants. And, he chose to focus the initial participants on a measurement system. Right from the start, Jefferson had an enormous stake in the success of this team as a result of his own public, explicit, irrevocable choice to use it as the principal means to solve the 19 problems. His perfect attendance at meetings over the four-year span of the team represents both the repetition of an action to which he has become committed, and justification for the action itself (if this weren't important, I wouldn't be here).

But it is not just Jefferson's position that explains why this team got off to a good start. Units around Motorola were asked if they would agree to have a representative at the team meetings. Each unit chose to send someone, and those decisions were visible and explicit as well as revocable. In the words of one of the representatives, "I am formally tied to another form of organization, but I choose to spend my time as though this is the most important thing I could be doing." Having chosen to allocate his efforts away from his formal assignment, this person might be expected to feel responsible for what he and the team do, and to justify those actions vigorously.

At the organizational level of analysis, Motorola was working hard to please a customer to which they were not absolutely bound, because only 10% of Motorola's semiconductor business was with the automotive industry. Motorola made it a choice (read volunteer) to deal with U.S. Motors' complaints as though they were Motorola's only client, as would a supplier of spark plugs, glass, or paint for whom virtually all of the business is automotive. To lose the U.S. Motors account would be truly significant, but not threaten the larger Motorola business. Thus, efforts made on behalf of the U.S. Motors account are not simply forced on team members. Instead, those efforts have an element of choice in them. And it is this every element of choice which intensifies the commitment to public, irrevocable actions that originate on the team to meet U.S. Motors' demands. It is those things we choose to do which we feel a need to explain, not those things we feel forced to do. To see how team members' perceptions correspond to this claim see the highest rated of the rank orderings; use the customer as the authority. (See Sidebar 2.)

Once the team began to meet regularly and grow larger, the meetings themselves took on a characteristic style which sustained the conditions for commitment. The focus on data and measurements, maintained through Jefferson's relentless use of questions rather than directives, created an environment in which actions had some degree of explicitness, visibility, choice, and irrevocability.

Consider a typical flurry of questions from Jefferson: I think we have a giant problem in Mexico. Who has the responsibility? What are we doing to contain the reject problem at U.S. Motors? Help me understand this data. Tell me why I should not be upset about this data. What could be the root cause of our current rash of expedites? What can we do about the data on item 5, is that not a problem as well?

Notice two things about these questions. First, data invites attention, it does not require it. If someone takes data seriously and responds to it, that is a choice not a demand. Second, questions such as those asked by Jefferson are a virtual recipe for commitment. The question usually stimulates attempted answers, any one of which could be actions and/or potential justifications. For example, in response to the question, "why should I not be upset by this data?", the answer may be, "you should be troubled because the data shows we still do not know what is bugging this customer." The answer implies an action (see the customer), a justification (a good reason to visit customers is to reduce complaints and improve data), and both the answer and the justification are public, explicit choices made by the person who fielded the question. Whether the answer is revocable or not depends on whether others agree with the assessment.

## Sidebar 2

OBJECTIVE	SUB-OBJECTIVE	Rank	Mean	Std. Dev.
Use the customer as the authority.	Ask the customer what they want.	2(tie)	2.7	1.3
	Ask, "who has seen the customer lately?" as a way to validate or question data.	4	4.5	1.4
	Say, "we have to do this because we are in the same boat together," instead of "do this because I say so."	5	4.9	1.0
	Know how the customer assigns value-added, and use their perception rather than yours.	2(tie)	2.9	1.5
	Team's theme parallels customer's theme.			
	Keep the relationship with the customer as more important than any single transaction.	3	3.5	1.8
		1	2.4	1.6

If questions themselves can set in motion a microcosm of commitment, and if that stimulus occurs in a setting which already is conducive to leading people to take personal responsibility for actions, then the team has built a culture which has a decided bias for action.

Other aspects of the meeting style were consistent with this emerging culture. People talked repeatedly about being "chartered" to do a task. This is a fascinating way to describe the process of getting an assignment. To be chartered is to work on behalf of someone, to have some say in the matter, to be a representative. A person who is chartered to do an assignment retains some choice over what will be done. And whatever is done also remains public since it is undertaken at someone else's behest.

The regular practice of "chartering" encouraged commitment, but so too did an emergent norm which is captured in the phrase, "step up, speak up and take some risks." Again, we would be hard-pressed to find a more compact recipe for commitment. To step up is to do something that is public, chosen, explicit, irrevocable. To speak up is to do something that is at least public, chosen, and explicit. And to take some risks is to do something which may be irrevocable.

While we could enumerate additional qualities of the team which underscore the focus on commitment, we conclude with Jefferson's own explanation of why he thinks this effort was so successful. During one interview, when we pressed him to give his own explanation for the success, he attributed it to three things: use of measurables, regular meetings, peer pressure. He mentioned these three long before he or we had imposed commitment as a frame on what happened. Nevertheless, the fit of his three with commitment is striking.

As we have seen, performance metrics are public and explicit and solve one of the toughest issues of commitment, namely, how do you create actions which are irrevocable? Counts of performance that have already taken place are a clear instance of an irrevocable action. The tricky part is insuring that a person does not justify a poor performance with reasons which make it impossible to improve the performance.

Jefferson's second success factor, "regular meetings," is consistent with our analysis that the engine for commitment was to be found in the meetings. We claimed that team meetings were voluntary gatherings of people with an action bias who traded information in response to a barrage of questions stimulated by a senior executive who had a significant investment in the gathering.

And Jefferson's third success factor, "peer pressure," captures the public, irrevocable quality of action on the team, the feeling that people act on behalf of the team, and the use of justifications that are acceptable to everyone on the team. His use of the word pressure does not undercut the role of choice in the formation of commitment since

team members retain control over whether they choose to treat team members or people back in their unit as peers.

By now the reader may be struck by the fact that none of what we have highlighted conspicuously involves team activity, even though people at Motorola attribute the success to a team. Our analysis suggests that, more important than team activity itself, is the combination of actions, justifications, and practices which happened to coincide with regular gatherings of people. Early on, key actions that were produced within the group and then woven into routines included volunteering, meeting face-to-face, promising, learning, taking on extra work, contacting, measuring, conferencing; in general, acting with candor across former boundaries. All of these actions had been performed infrequently up until the point where people, at Jefferson's request, began to meet more often to work on the problems with U.S. Motors. And none of the actions are uniquely team actions.

Furthermore, the justifications for committed action that began to gain widespread acceptance were not focused on the team per se. Instead, people gave as the reasons for their committed actions rationales such as "my action kept an assembly line running, headed off a problem, made communication more honest, helped other units, saved jobs, increased the number of contacts, enabled us to learn, and raised the standard to which we aspire." Notice that most of these justifications focus on issues of task performance, quality, and linkage rather than on the team within which these activities are housed. It seems to us that the team is important in this story mainly because it activated choice, publicity, and irrevocability as the grounds for action, because it regularly reminded people that they were responsible for their actions and those of others on the U.S. Motors account, and because the team provided a common forum where results could be reviewed and new commitments created.<sup>6</sup>

If we are right that the team was influential in improving the supplier relationship with U.S. Motors, it was because of the conditions for action that were created when it assembled, rather than for any kind of additional group effect. These conditions have implications for the lessons to be drawn for future practice. We conclude with a review of these lessons.

### Conclusion

In the interest of economy, we have tried to explain the complexities of the U.S. Motors experience with a compact set of ideas about commitment that fit much of what happened and suggest trainable implications. Other observers, examining the same set of events, might well have singled out different explanations.

We can imagine, for example, that other observers might say things like:

Who needs the idea of commitment to explain high performance at Motorola when it is just as easy to argue that threat improved performance?

Or, performance improved as a result of a centralized structure imposed in a decentralized firm?

Or, it improved through an unusual display of top management interest?

Or, performance improved through a shift from general to specific goals, greater attention to performance measures, or increased information sharing?

All six of those explanations are plausible, but they fall short in several ways.

First, none of the six are unique to the U.S. Motors team. All six apply equally well to other cross-functional teams in Motorola which are striving to replicate the U.S. Motors process. Therefore, these factors, by themselves, are not sufficient to explain the success of the U.S. Motors team.

Second, each of the six involves a change which can have short-term effects, but then tends to wear off. The U.S. Motors team is distinctive because of its sustained success, which suggests to us that it has a capacity for self-renewal and self-design. Our analysis suggests that this capacity for self-renewal takes the form of continuous new actions which force an updating of old rationales and justifications. Updating encourages still more new actions.

<sup>6</sup>For a similar view on commitment see: O'Reilly, C., (1989). "Corporations, culture and commitment: Motivation and social control in organizations." *California Management Review*, 31, (4), 9-25.

Third, and finally, all six alternatives can be incorporated into the commitment framework. Threat heightens the perception of irrevocability (e.g., "this is for keeps"), but also can reduce the feeling of choice. Centralization is a public, explicit, volitional, and irrevocable action of organizational design which can be justified as a way to offset deficiencies in existing decentralized structures. Top management interest heightens the public, irrevocable nature of action (e.g., "what I do could affect my chances for promotion"). Specific goals, in the form of the 19 problems at U.S. Motors, provide potential justifications as well as give people some choice as to which problem their action addresses. Performance measures heighten the explicit, public, irrevocable nature of action. And information sharing promotes the development of common justifications.

If managers remain attentive to potential actions and justifications in ongoing conversations, and also to fluctuations in choice, visibility, explicitness, and irrevocability in the situations which accompany those actions, then they will be in a better position to orchestrate feelings of responsibility.

And it looks like one of the best ways to influence responsibility is to rely on questioning and listening in settings where significant players have volunteered to discuss problems.<sup>7</sup> This bare-bones set of requirements appears to be what the Motorola team started with in its quest to solve the 19 problems. More important, they stuck with these fundamentals throughout their history. Furthermore, these fundamentals were exported intact to other gatherings that were spun off from the monthly meetings. Thus, a culture of commitment that was built in a monthly team meeting was then disseminated in the days following these meetings. Any deterioration of that culture between meetings was quickly reversed when the full team reconvened and reaffirmed both the practices that produced commitment and the ideas to which people were committed.

The lesson from Motorola seems to be that cross-functional teams may be most effective at solving problems if they embody the four conditions necessary to produce behavioral commitment. When cross-functional teams fail, we would hazard the guess that one or more of the committing conditions has been undermined. For example, it is common for bureaucrats to be assigned as leaders of cross-functional teams. When they impose their bureaucratic style, directives replace choice, participants worry about failure and hesitate to act, actions tend to be revocable, and there is growing indifference as to whether one's actions are public or private since those actions aren't consequential anyway. A failed cross-functional team may not be the result of insensitivity to group dynamics. Instead, it may reflect an insensitivity to the conditions that energize sustained action. These seem to be the conditions that Motorola discovered.

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<sup>7</sup> For support on leaders' use of questions see: Manz, C. & Simms, H., (1990). *Superleadership*. New York: Berkley Books.

## THE MAQUILADORA INDUSTRY: AN ANALYSIS ON VOLUNTARY TURNOVER

Jaime Chaire Huerta

### INTRODUCTION

Employee turnover has been studied in almost all types of organizations. Around the world, and mainly in industrialized countries, the literature provides an extensive data base on the causes, correlates, and consequences of turnover. This thorough accumulation is indicative of the extent to which turnover effects are important to many disciplines. Nevertheless, in developing countries the research on turnover has been virtually nonexistent. The present research grew from the perceived need to contribute with empirical research to the field of turnover in the Mexican maquiladora industry.

Although Mexico suffers high rates of unemployment and under-employment, the low wages and the expansion of maquiladoras in cities along the Mexican border is believed to have created a labor shortage and increased the rates of turnover. The shortage relates to the amount of workers needed with both the skills to do maquiladora work, which is tedious, repetitive, and hard, and the willingness to stay in the job. As a consequence, firms face a high rate of employee turnover (Teagarden et al., 1992; Taylor, 1991; Farquharson, 1991).

### PROBLEM STATEMENT

The purpose of this research is to test dependable determinants of turnover for workers in the maquiladora industry in order to identify specific indications about motives people may have which cause them to leave the organization voluntarily. The investigation used certain aspects of Steers and Mowday's (1981) voluntary turnover model as a framework to analyze the distinct variables contributing to the turnover rate in maquiladoras.

### RESEARCH QUESTIONS

From Steers and Mowday's model, the following research questions were derived:

1. What influence do individual characteristics, information about the job, and alternative job opportunities, have on job expectations?
2. What influence do job expectations, organizational characteristics, and job performance have on affective responses to the job (job satisfaction, job commitment, and job involvement)?
3. What influence do affective responses to the job (Job satisfaction, job commitment, and job involvement), and non-work influences, have on intention to leave?
4. What influence do intention to leave and alternative job opportunities have on actual leaving?

### SIGNIFICANCE OF THE STUDY

Locating an organization in a different environment in order to benefit from certain comparative advantages often causes a number of problems that may diminish the attractiveness of the new location's alleged advantages. In the case of the maquiladora industry, the dislocation of the population creates social problems of their own, which are reflected directly in the organizational environment. Turnover seems to be a result of low wages and boring and repetitive activities to which the Mexican workers are not yet adapted, given their agricultural background. Training and technical jobs will be increasingly needed in the future. However, the high rate of turnover will reduce the effectiveness of educational efforts at the same time as it increases the cost of production.

## REVIEW OF THE LITERATURE

Contemporary theory suggests that turnover should be examined holistically across several dimensions of personal and organizational perspectives. In order to understand and effectively control employee turnover, managers must integrate individual, organizational, and environmental perspectives, recognize both the positive and negative potential consequences of turnover; and recognize that it is an on-going process with multiple causes and consequences that requires a proactive, rather than reactive, posture.

The study of turnover has maintained a steady flow of research. Steers and Mowday (1981) reported over 1,000 studies of turnover in this century. During the last twenty years, the subject stimulated several reviews, such as Porter and Steers (1973); Forrest, Cummings, and Johnson (1977); Price (1977); Muchinsky and Tuttle (1979); and Mobley, Griffeth, Hand, and Meglino (1979). These reviews recognize the multiple determinants influencing turnover and the need for integrative conceptual models for better understanding of the turnover process.

Beyond simple reviews, however, several investigators have attempted to propose conceptual models of the turnover process based on existing literature (March and Simon, 1958; Price, 1977; Price, 1989; Steers and Mowday, 1981). Although the details of the models differ, turnover is generally thought to be a function of negative job attitudes combined with an ability to secure employment elsewhere.

### The Steers and Mowday Model

Steers and Mowday (1981) proposed that the following sequence of variables leads to an employee's staying with or leaving an organization: 1) Individual characteristics, available information, and alternative opportunities influence job expectations and values. Individual characteristics and labor market economic conditions were seen as the primary influences on alternative job opportunities; 2) Job expectations and values, job performance, organizational characteristics, and organizational experience influence affective responses to the job. Also, affective responses are interrelated to the efforts the employee makes in order to change a situation; 3) Affective responses to job and non-work influences affect desire and intention to stay or leave; and, 4) Actual leaving is the interaction of the intention to leave with alternative job opportunities.

## METHODOLOGY

The model developed to analyze the distinct variables contributing to the turnover rate was derived from Steers and Mowday's (1981) voluntary turnover model.

Thus, this study postulates, in line with Steers and Mowday (1981), and Mobley (1982), that understanding of turnover can be enhanced with the inclusion of different variables into a coherent model. These variables may influence not only turnover but intervening outcomes such as job expectations, satisfaction, commitment, and involvement. The model used for this study was adapted to better fit the environment in which is to be tested (Figure 1).

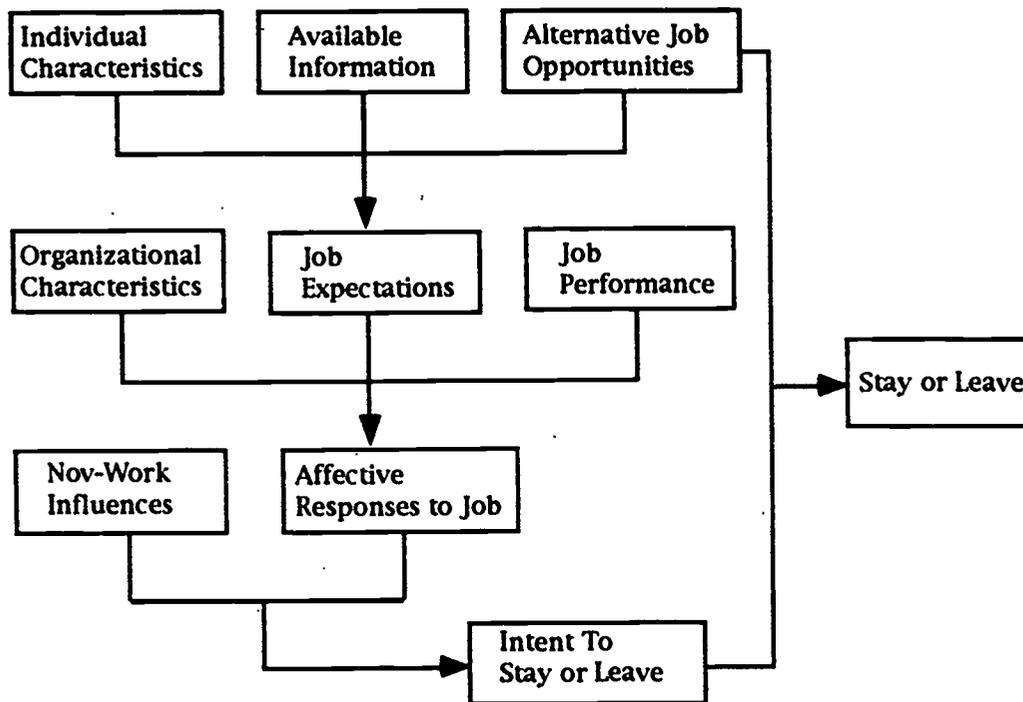


Figure 1: Proposed Model of Voluntary Turnover

#### DATA COLLECTION

The study was conducted at two assembly plants located on the border between Texas and Tamaulipas, Mexico. Company A employed approximately 2,300 people and Company B approximately 1,100 people. To identify potential respondents in each plant, a stratified random sampling procedure was used. Each company was stratified by different areas of production. Samples of  $n=124$  and  $n=100$  were drawn from company A and B, respectively.

From the total drawing of 224 respondents from both companies, ten questionnaires were rejected due to incomplete data (seven from company A, and three from company B). The final sample selected for the study was  $n=214$  respondents; 117 were from company A and 97 were from company B.

The reliability of the instrument was determined by a pilot test of the translated instrument on a group as similar to the population as possible. The instrument was tested in a group of 30 workers of one of the companies selected for the study. The data collected was kept for a period of approximately six months. After that period, the companies provided a list with the status of each of the participants in the study.

#### Structural Equations Modeling

The first analysis in this study used structural equations modeling (SEM). Structural equation models can be used to systematically develop and test theories in the social and behavioral sciences (Mulaik, 1987). Each equation in the model represents hypothesized causal links and not just empirical associations. Structural equation models have become increasingly important methodological tools for studying linear relations. Specific applications have considered a wide variety of problems including the role of job satisfaction and organizational commitment in turnover models (Williams & Hazer, 1986). The main advantage of structural equations is that they can be used to translate a verbal theory into a mathematical model that can be estimated, tested, and from which inferences can be drawn (Anderson, 1973).

### Logistic Regression

The last part of this study relates turnover with intention to leave and alternative job opportunities. The potential influence of these variables on turnover has represented a methodological challenge, namely due to the statistical model selected by researchers and the dichotomous characteristic of the dependent variable (Huselid & Day, 1991; Cleary & Angel, 1984).

Logistic models are based on the assumption that the underlying relationships can be represented as a logistic, sigmoid function (Theil 1970). Such function lies between zero and one, and has its maximum slope in the midrange of X, conforming to what we would expect of a probability. Basically, logistic regression allows the researcher to perform a regression-like analysis of the data in cases where the dependent variable is a qualitative rather than a continuous interval level variable.

### FINDINGS

The voluntary turnover rate for the six month period was 13% for company A and 12% for company B

The structural model suggests notable causal relationships among certain latent variables. Of these, the strongest relationship appeared to be between Affective Responses and Intent to Leave. A parameter estimation of -2.72 ( $p < .05$ ) indicates that a more negative affective response to the job increases the intention to leave.

In the first research question no individual characteristics significantly predicted job expectations: Education ( $b = .17$ ,  $p > .05$ ), age ( $b = -.10$ ,  $p > .05$ ), status ( $b = -.03$ ,  $p > .05$ ), Tenure ( $b = .05$ ,  $p > .05$ ). However, available information was significantly positively related to job expectations ( $b = .5$ ,  $p < .05$ ). Also, alternative opportunities were significantly negatively related to job expectations ( $b = -.28$ ,  $p < .05$ ). These relationships were predicted by the conceptual model. Education was mentioned as not significantly related using the .05 two-tailed criteria. The z-value for education was -1.84. However, there is yet indication of a marginal relationship with expectations in the way that the higher the level of education, the more it is expected from the organization by the employees.

In the second research question organizational characteristics and job expectations showed a positive relationship with affective responses to job, whereas job performance showed a negative relationship. Job performance, however, did not meet the assumptions of the model.

The third research question non-work influences ( $b = -0.31$ ,  $p > .05$ ) were not significantly related to intent to stay or leave. Nevertheless, there was an indication of a marginal or approaching significance in the way the model predicts. Affective responses to job ( $b = -0.38$ ,  $p < .05$ ), proved to be significantly negatively related to intent to stay or leave.

The fourth research question addressed the influence that intention to leave and alternative job opportunities had on actual leaving. As considered previously, logistic regression model was used, comprising intent to stay and alternative job opportunities as the independent variables and turnover as the dependent variable. Intention to leave and alternative job opportunities were entered in stepwise fashion.

Intent to leave ( $B = .39$ ,  $p < .01$ ) indicates that the greater the intent to leave the more likely workers did leave their employment. The exponential value of this B coefficient is created to express in odds ratio the effect of the prediction. For intent to leave, the exponential B is 1.47 which shows that for each unit increase in intent to leave there is a 1:47 to 1 greater likelihood of actually leaving.

### IMPLICATION OF THE FINDINGS

In general, the results can be interpreted as partially supporting certain predictions taken from the primary conceptual model of Steers and Mowday. Hypotheses one through four tested the major relationships of the model, and substantial support for some relationships emerged.

The results of the study revealed a statistically significant influence of available information and alternative job opportunities on job expectations. In previous research, Lee and Mowday (1987) tested this relationship and found that only available information influenced job expectations.

The results showed organization characteristics, job expectations, and job performance to be significantly related to affective responses to job.

Organizational characteristics and job expectations showed a positive relationship with affective responses to job, whereas job performance showed a negative relationship.

The results of the study showed affective responses to job to be significantly negatively related to intent to stay or leave. As the model prescribes it, the higher the level of affective responses to job, the lower the intention for leaving the organization. Non-work influences, however, were not significantly related to the intention to stay or leave.

The findings obtained from this investigation support previous research considering the hypothetical linkage between affective responses to job and non-work influences with intention to stay or leave (Lee & Mowday, 1987). There is, as well, support for previous research linking particular affective responses to intention to leave.

The study indicated that intention to leave was a strong predictor of turnover. These results corroborate the accepted notion that intention to leave is the best predictor of turnover (Michaels & Spector, 1982). However, alternative job opportunities did not work as a predictor of turnover. This last finding does not support the relationship proposed in the model; nevertheless, it supports previous research indicating that there is little empirical evidence for a strong effect of available job opportunities on turnover (Hulin, Roznowsky & Hachiya, 1985; Lee & Mowday, 1987).

#### **Implications for the organization**

For the organizations involved in this study, this study underscores the consequences that efforts in improving education and training have on employees with respect to their staying.

It was interesting to note how education was related to a series of distinct variables, underlying the importance of developing the potential of the people working in the maquiladoras. Teagarden, Butler, and Glinow (1992), already presented the importance of developing human resources in the maquiladoras; nevertheless, this study provides empirical support for this assertion.

Level of education was related significantly to alternative opportunities, intention to leave, and actual leaving. The negative relationship between education and alternative opportunities seems to reflect the self-assurance achieved through education by the employees interviewed. As employees gain new skills and knowledge, it is likely they feel more prepared and more confident in searching for better jobs. Therefore, they become also less afraid of losing their jobs. Similarly, a higher level of education was related to a higher intention of leaving and also to actual leaving. Consequently, people with higher levels of education were more likely to have a higher intention to leave and also were more likely to leave. This is understandable, since the skills acquired through education provided by their employer enable them to get equal or better jobs at other maquiladoras.

For the organization this situation seems to present a contradiction. On the one hand, many of the maquiladoras in the region of Tamaulipas provide a series of benefits emphasizing the improvement of the technical skills and knowledge in their workers. On the other hand, their people might prefer to leave because they reach the point in which they feel less dependent upon the organization to progress in their work.

Empowering people through education creates the risk for the organization that by making their skills more marketable, it ultimately makes it more likely for them to move to another organization in search of a better paying job.

#### **SUMMARY AND CONCLUSIONS**

This research has attempted to analyze different determinants of turnover in the maquiladora industry. Steers and Mowday's model has been used as a framework for the research, and the model has served to test several variables intervening in the process of turnover within the maquiladoras. As a result, certain relationships have been supported.

In general, turnover has been a characteristic of the maquiladora industry. This study has addressed the need of linking the educational efforts of maquiladoras to career

development and improved management practices in order to build a set of incentives for long term commitment.

The interest in employee turnover within the maquiladora industry will continue to expand now and in the future. Continued technological improvements and growth in human resource costs will require increasingly sophisticated human resources measurement systems to evaluate turnover costs and consequences. Understanding the concepts and the consequences of turnover on the organization and the people involved, is now and in the future more important than ever. Hopefully, this research will propel future researchers and managers in the continuing pursuit of this understanding.

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## **New Employee Adaptation to the Workplace: A Learning Perspective**

Shirley T. Copeland  
Albert K. Wiswell

One of the most prevalent complaints about newcomers to the workplace, especially college graduates, is the fact that a high percentage of them are likely to leave the organization within the first year of employment. This is not just a recurring aggravation to organizations, but a real cost. The costs of recruitment, training, and often lower levels of initial productivity can account for half or more of an employee's annual salary. Obviously, many factors affect turnover. Economic conditions which stimulate the job market may increase opportunities for advancement, better working conditions, or income levels, and therefore contribute to turnover. Also, an employee may have unrealistic expectations of the activities the job entails and leave due to the disappointing reality of the actual job tasks. And finally, an employee may actually be unsuited for the requirements of the job, a failure of the prime purpose of the recruitment process.

However, organizational researchers have attributed part of the high turnover rate to the individual's failure to adjust to the organization, although they have failed to show empirically why some newcomers do not adapt. This adjustment is a process of socialization and acculturation (in the military, indoctrination). A useful mechanism for understanding this process is learning, because transmission of organizational culture, norms, and procedures occurs through a formal or informal process of communicating information about the organization (as well as the newcomer), and the subsequent behavior changes. This perspective leads to the proposition that lack of adjustment of a newcomer is an indication of the failure of successful learning to occur. The study reported here was a systematic examination of the contributions of socialization-related learning experiences, satisfaction with learning, and unmet expectations to job satisfaction and commitment for new employees in a federal agency. Several conceptual models were also tested.

### **Method**

A questionnaire was used to assess the employee's socialization-related learning experiences, satisfaction with learning experiences, unmet job expectations, job satisfaction and commitment, using a five-point Likert scale indicating the degree to which they agreed with the items. It also collected selected demographic data and allowed for open ended responses about job-related learning experiences. The actual sample included 352 professional recruits at the United States General Services Administration, representing 74% of all of the new hires in the previous twenty-four months.

Socialization related learning was measured by three five-item subscales identified through varimax factor analysis: Establishing relationships; acculturation to the company; and job knowledge. Chronbach's alpha internal consistency reliabilities were .83, .82, and .81 respectively. Satisfaction with learning experiences was measured by a four-item scale also developed for this study (reliability=.86). Unmet job expectations were measured with a twelve-item scale (reliability = .96) developed by Holton (1991). Job satisfaction was measured by a six-item scale developed by Hackman and Lawler (1971), yielding a reliability of .85. Commitment was measured by a ten-item scale (reliability = .92) adapted from the Organizational Commitment Questionnaire (Porter, Steers, Mowday, and Boulian, 1974).

### **The Consequences of Unsuccessful Socialization-Related Learning**

Socialization-related learning involves establishing coworker relationships, becoming acculturated to the company, and acquiring the knowledge necessary to perform the job in the new organization. Two groups were formed based on the mean score of the three socialization-related learning subscales. Those who scored below the mean of 3.81 were labeled unsuccessful. Those scoring above the mean were labeled successful. As shown in Table 1, successful learners, i.e., those who indicated mastery of socialization-related learning, are more committed to the organization, more satisfied with their job, and more satisfied with their learning experiences than the unsuccessful learners, who were therefore the likely candidates for turnover.

**Table 1 — Successful vs Unsuccessful Learners**

Scale	Scale Means (Std. dev. in parenthesis)		
	Successful Learners (n=180)	Unsuccessful Learners (n=172)	t-test
Satisfaction with Learning Experiences	3.96 (.79)	3.20 (.88)	-8.46*
Unmet Expectations	3.44 (.81)	2.88 (.81)	-6.47*
Job Satisfaction	3.85 (.70)	3.36 (.75)	-6.24*
Commitment	3.58 (.79)	3.13 (.73)	-5.65*

**Notes.** \* p < .01 (two-tailed)

While these findings show that there are distinct differences between successful learners and unsuccessful learners, we cannot attribute the failure to learn to a particular variable or experience. Indeed, failure to learn could be due to any number of causes. Some employees may not have mastered the skills necessary for learning in the workplace such as inquiry, reflection, and error testing, which could impede their learning. In addition, much of the training that these employees received was "on-the-job" training, either from peers, supervisors, or through "trial and error". Potential problems may arise when coworkers are unskilled in transferring their knowledge to other workers or when there are organizational constraints to group-related learning. A small number of respondents (5%) reported encountering nonsupportive, unwilling, or incapable coworkers and supervisors in the workplace. These coworkers and supervisors could be negatively influencing the new employees' learning and adaptation to the workplace. The unsuccessful learners were also those who expressed dissatisfaction with their learning experiences. It may be that the learners were unsuccessful because they perceived they were not receiving the support they needed. Researchers (O'Connor, Peters, Pooyan, Weekley, Frank & Erenkranz, 1984) have suggested that trainees' perceptions of task constraints may indirectly influence behavior change and learning by reducing the motivation to learn new skills.

### **The Contributions of Selected Variables to Job Satisfaction and Commitment**

#### **Job Satisfaction**

Job satisfaction is determined by such conditions as interesting work, challenge, and autonomy, and to a lesser degree by extrinsic rewards such as pay and security (Katzell, Thompson, & Guzzo, 1992). A regression analysis was performed to look at the

contributions of socialization-related learning experiences, unmet expectations, and satisfaction with learning to job satisfaction. As shown in Table 2, the model explained 61% of the variance in job satisfaction. Socialization-related learning experiences contributed 15% to the model, but unmet expectations and satisfaction with learning experiences, as a set, accounted for an additional 46%.

**Table 2 — A Regression Analysis of a Model of Job Satisfaction**

Step	R <sup>2</sup>	ΔR <sup>2</sup>	FΔ	p
<b>Socialization-Related Learning Experiences:</b> Establishing Relationships Acculturation to the Company Job Knowledge	.151	.151	20.18	.001
Unmet Expectations Satisfaction with Learning Experiences	.608	.456	196.59	.001

### Commitment

A conceptual model of commitment was proposed that commitment occurs as the newcomer negotiates the socialization-related learning activities and workplace learning experiences, and expresses satisfaction with the job. Researchers have argued that socialization occurs over stages (Buchanan, 1974; Feldman, 1976) and as such, the model depicts this process in a sequential ordering, with commitment as the outcome of the process. As Table 3 indicates, 71% of the variance in commitment is explained by the model. The three socialization-related learning experiences together contributed a significant 15%, unmet expectations and satisfaction with learning experiences, as a set, contributed an additional significant 41%, and job satisfaction contributed an additional 14%, also significant

**Table 3 — A Model of Commitment: A Hierarchical Regression Analysis**

Step	R <sup>2</sup>	ΔR <sup>2</sup>	FΔ	Beta	p
<b>Socialization-Related Learning Experiences:</b> Establishing Relationships Acculturation to the Company Job Knowledge	.151	.153	20.44*	.013 .039 -.061	.001
Unmet Expectations Satisfaction with Learning Experiences	.562	.409	157.16*	.130 .165	.001
Job Satisfaction	.706	.144	164.77*	.601	.001

The largest contributors to commitment for new employees were unmet expectations and satisfaction with learning experiences. This finding supports other researchers (Mowday, Porter, & Steers, 1982; Pierce & Dunham, 1987) who state that commitment develops, in part, as a result of an individual's work experiences and how he or she perceives them.

### The Individual, Group, and Organizational Learning Model of the Socialization Process for New Employees

These findings are consistent with the view that the socialization process is ongoing and builds upon experiences and knowledge gained from socialization-related learning, informal learning, on the job training, and formal training. The Individual, Group, and Organizational Learning Model, as shown in Figure 1, portrays the developmental and interactive nature of the socialization process. It has practical application for practitioners, because it can be used as a guidepost for including more team and organizational learning activities in orientation and training programs.

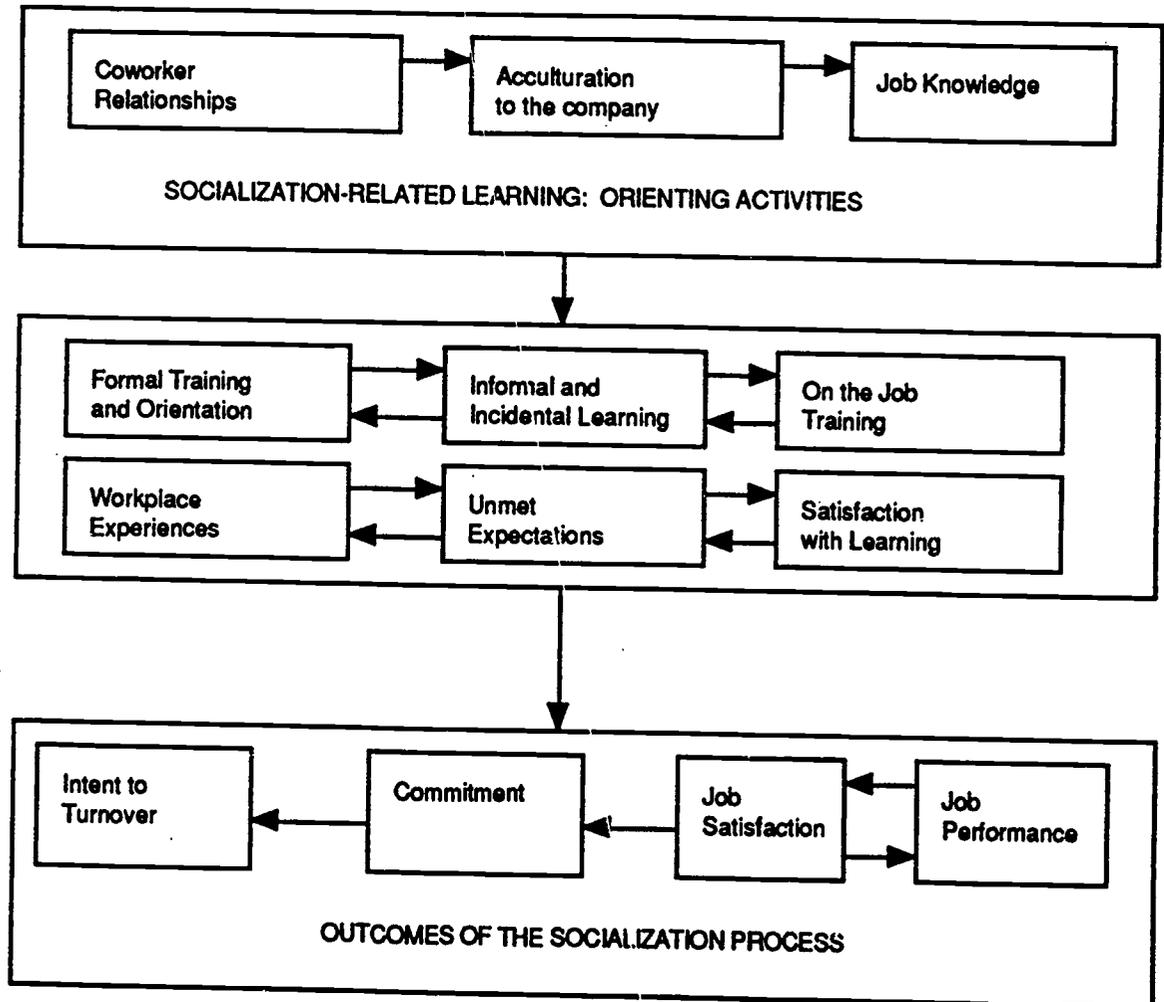


Figure 1. The Individual Group and Organizational Learning Model of the Socialization Process for New Employees

### Recommendations for Practice

The majority of the employees completed the socialization process successfully, but some did not. Individuals who had difficulty completing the socialization process, as demonstrated in their lower levels of commitment and job satisfaction, are the likely candidates for turnover. These individuals represent the target population for

interventions to improve the socialization process. To enhance new employees' chances for successful adaptation to the workplace, orientation, training, and development should be viewed as an ongoing process that is facilitated by the individual, the coworkers, the supervisor, and the workplace learning experiences. Training may be helpful in some areas and some organizational initiatives might also be worthwhile.

### **Training**

Orientation programs should not be used as a substitute for job specific training or be viewed as an adequate training program for new employees. While general information such as company's personnel policies and procedures is usually included in the orientation, it would be helpful to include more company-related information that shows how various agencies or departments fit within the total picture of the organization and what functions the departments fulfill. This type of information would help the newcomer understand his or her role within the organization. Additional training might be helpful in orienting new employees, supervisory training and work group training.

**Orienting new employees.** Some individuals may lack the skills that are necessary for learning on-the-job and from coworkers. Others may be inexperienced in cultivating good work relationships. Thus, it may be helpful to include a supplementary training program during orientation that includes the following topics: (a) interpersonal skills (informal learning, feedback, negotiation, listening and oral communication); and (b) organizational effectiveness (understanding the basic power structure). By including these topics as part of the initial orientation program, all new employees will be better prepared to learn from their workplace experiences and from their coworkers.

**Work group training.** Coworkers provide an extensive amount of on-the-job training. To help them facilitate their learning and the newcomer's learning, training could be provided in the following areas: critical learning skills and team-functioning skills (functioning in a group setting). Additionally, more emphasis on team-related activities would help ensure that everyone is engaged in continual learning.

### **Workplace Learning Experiences**

Typically, employees expect to have interesting and challenging work, and some autonomy on the job. If more of these features are included in the new employee's job experiences, it is likely that he or she will have a better fit with their job expectations. To improve the training and workplace experiences, the following interventions may help: (a) provide more challenging job assignments and (b) establish the appropriate learning climate. Until employers make a commitment to improving on the job learning experiences, it is unlikely that turnover will be noticeably reduced.

The preponderance of empirical studies about employee socialization has used the outcomes of job satisfaction, commitment, and turnover as indicators of the success of the socialization process (e.g., Allen & Meyer, 1990; Nelson & Quick, 1991). These findings suggest that a clearer view of the process may be obtained by examining the learning itself which is part of the socialization. This has two advantages. First, as Figure 1 implies, satisfaction, commitment, and turnover are results of the socialization process, not the process itself. Second, as previously noted, many other factors besides socialization have a bearing on satisfaction, commitment, and ultimately, turnover. It appears that in order to achieve high levels of job satisfaction and commitment, newcomers must successfully negotiate the socialization-related learning experiences, experience met expectations, and encounter positive learning experiences. When these elements are missing, successful adaptation is less likely. Training and orientation

programs that are designed to address these elements are more likely to be successful in helping the new employee to adjust successfully to the organization.

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## An Organizational Strategy For Professional Ethics

Peter J. Dean

Human Resource Development (HRD) professionals are responsible for choosing interventions to create, maintain and improve the environmental system of organizations (Pace, Smith, and Mills, 1991). The first step is a careful assessment and analysis of needs in order to identify either the organizational or performance problem or performance improvement. This requires knowledge of assessment strategies (Harless, 1973; Kolb, 1974; Weisbord, 1976; Nadler, 1977; Gilbert, 1978; Mager and Pipe, 1984; Kaufman, 1986; Rossett, 1987; Mills, Pace, & Peterson, 1989; Rummier and Brache, 1990; and Sleezer, Cipicchio and Pitonyak, 1992). In addition, the HRD professional has a fiduciary duty to be sure the process, especially the needs assessment, contributes to the "organization's change goals" (Bednar, 1988, p. 31), so that the changes our interventions bring about are in line with the goals of the organization (Hellriegel, Slocum, & Woodman, 1986). We also have another responsibility that is seldom discussed, the responsibility to uphold a work environment where ethical decision-making is likely to occur (Trevino, 1990 and Velasquez, 1982).

Put an ethical performer in an environment that doesn't support ethical performance and ethics in performance will begin to slip (Rummier and Brache, 1990). Indeed, research has shown that the majority of employees are committed to standards of high ethics (Aresty Institute of Executive Education, 1988), but even with a code of ethics to guide them, they are not often confident about making the right decisions, especially if the environmental supports for ethical decision-making are lacking.

In the past, formalizing ethics in business and industry has involved the study of the philosophical vantage points from which ethical decisions are made, or the case study method, which is the application of these vantage points. Yet, even where these approaches are used, ethical decisions are often found lacking. Managers have not had systematic methods for: identifying deficiencies in environmental support, or identifying the most pressing ethical issues so they can address them. Moreover, the majority of the literature on business ethics fails to address the environment's influence on ethical performance (Dean, 1993).

What is needed is a strategy to identify worker, workplace and work design factors that influence ethical effectiveness and how these factors can be "fine-tuned" to improve effectiveness where it is lacking.

We know that in order to encourage maximum performance, we must set high expectations (Rosenthal & Jacobson, 1968). It follows that to improve ethical decision-making, it would be desirable to identify the behaviors that are common to the most ethical decision makers (exemplars) and to identify the work environment factors that improve, maintain or diminish the quality of exemplar performance (Gilbert, 1978; Rummier and Brache, 1990). Gilbert claims that fine tuning these factors "carries a guarantee of high competence, provided that management is structured to really deliver these things and has a clear focus on job mission" (1978, p. 87). Even though managers are uniquely positioned to engineer the work environment which can influence competence in ethical performance, they still require an understanding of the underpinnings of ethical theory in ethics if they are to manage ethically. Thus, managers need to know the two vantage points of ethical decision making. They also need to understand the environmental factors that influence ethical behavior in order to recognize and address ethical issues and to influence the ethical environment of an organization. For instance, an ethical climate in an organization is one of the environmental factors that impact performance and productivity. Factors of the ethical climate that might influence the employees include:

- inconsistent application of policies;

- lack of concern for the rights or safety of the individual;
- failure of the organization to comply with the law; and
- misrepresentation to suppliers or clients.

Moreover, withholding information or establishing unrealistic expectations in an attempt to gain control or power are unethical acts that damage performance output.

### **Organizational Requirements**

Through a needs assessment, HRD professionals can help managers determine the environmental factors that must be fine tuned in order to achieve an ethical climate, and what fine-tuning solutions would best contribute to its development. Navran (1990, in Dean, 1993) refers to such assessments as ethics audits. He has found that ethical effectiveness is achieved when - after conducting a needs assessment/ethics audit - an organization systematically designs, develops and implements any of the environmental factors they are missing. These factors include:

1. clear organizational values that provide direction and consistency in decision-making;
2. ethics strategies that define ethics goals and objectives and allow the organization to measure progress;
3. ethics policies and procedures that describe how ethics strategies are to be implemented;
4. guidelines for ethical decision making that offer directions to decision makers who must deal with situations not addressed by policies and procedures;
5. measures of ethical effectiveness that determine if ethical standards are being maintained and if the standards are yielding the desired results;
6. assessment of ethical climate to determine congruence between collective perceptions of the organizations values and individual values;
7. support for ethical practices from formal and informal systems and application of ethical guidelines to all aspects of all jobs;
8. ethical leadership practices that model ethical behavior expected by all employees;
9. ethics education and training to enable employees to act on their responsibilities for the ethical effectiveness of the organization;
10. evaluation of the impact of ethical practices on productivity and profitability;
11. rewards for ethical behaviors and decisions that the organization wants to sustain; and
12. respect for employees' personal values that will encourage their support for what they are asked to do for the organization.

For instance, regarding number ten above, "evaluation of the impact of ethical practices on productivity and profitability;" the HRD professional can help the organization recognize the different ways in which a solution implemented at one level of the organization will impact other levels and the organization as a whole. Combining knowledge of the factors that contribute to an ethical environment with the HRD process enables HRD professionals to analyze needs, identify gaps in the ethical environment and ethical performance of an organization and suggest solutions for closing those gaps. Looking at Navran's list, we see that an environmental system where a manager spells out expectations, guidelines and strategies is necessary for addressing virtually all of the factors related to ethical work environment.

## Behavior Engineering Model

### Performance Support Factors Present

	Stimuli	Response	Consequences
E n v i r o n m e n t	Cell 1 Information	Cell 2 Resources	Cell 3 Incentives
	<ul style="list-style-type: none"> <li>• Descriptions of what is expected of performance</li> <li>• Clear and relevant guides on how to do the job</li> <li>• Relevant and frequent feedback about the adequacy of performance</li> </ul>	<ul style="list-style-type: none"> <li>• Tools, resources, time, and materials designed to achieve performance needs</li> <li>• Access to leaders</li> <li>• Sufficient personnel</li> <li>• Organized work processes</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate financial incentives made contingent upon performance</li> <li>• Non-monetary incentives</li> <li>• Career development opportunities</li> <li>• Clear consequences for poor performance</li> </ul>
I n d i v i d u a l	Cell 4 Knowledge	Cell 5 Capacity	Cell 6 Motives
	<ul style="list-style-type: none"> <li>• Systematically designed training that matches requirements of exemplary performers</li> <li>• Opportunity for training</li> </ul>	<ul style="list-style-type: none"> <li>• Match between people and position</li> <li>• Good selection processes</li> <li>• Flexible scheduling of performance to match peak capacity of workers</li> <li>• Prostheses or visual aids to augment capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Recognition of worker's willingness to work for available incentives</li> <li>• Assessment of worker's motivation</li> <li>• Recruitment of workers to <del>match</del> realities of work conditions</li> </ul>

Provided below is a brief overview of the key ethical theories and research literature that describes the necessary vantage points for thinking through ethical issues and concerns and a strategy for managing an ethical work environment. Both the vantage points of ethics and a strategy are necessary to manage an ethical environment. The strategy is derived from Gilbert's (1978) Behavior Engineering Model.

### **Behavior Engineering Model**

Gilbert's (1978) Behavior Engineering Model is used as a tool to diagnose needs and prioritize and plan performance improvement solutions. The three cells along the top row of the model, information, resources, and incentives, represent factors of the work environment that influence performance. When these performance support factors are provided for, employees are empowered to perform at an exemplary level. When employees are given the responsibility and authority to perform at an exemplary level, but the support factors are not provided; the employees are not, in fact, empowered and attention to ethics may become slack.

The absence of performance support factors in the work environment is probably the single greatest cause of performance deficiencies. This is why, in identifying the solutions that will yield performance improvement; we begin by examining the support factors in the work environment. Gilbert believes that the majority of time, performance improvement can be achieved by addressing the environmental support factors, yet traditionally

managers and human resource specialists assume that the individual, not the environment needs "fixing" and thus training is provided as the performance improvement solution. It doesn't take much effort to identify the consequences of this poor diagnosis:

- the performance doesn't improve to the degree that managers expect it to which leads them to discredit the training, the employee or both;
- more money is spent on an ineffective solution, than would have been required to address most environment support factors; and
- the disparity between the average and exemplary employees remains.

Of course there are many instances in which the appropriate performance improvement solution does involve the employee directly. The bottom row of the Behavior Engineering Model represents factors related to the employee. The first, knowledge, comes into play when training is needed for:

- new job responsibilities;
- participation in cross-functional teams;
- using new equipment; and
- addressing gaps in knowledge and skills.

In these instances, it is often not necessary to use the Behavior Engineering Model to identify the cause of performance deficiencies.

The second cell on the bottom row of the Behavior Engineering Model, capacity, represents a mismatch between the employee and the job requirements or a poor selection process.

It is Gilbert's contention that motivation, the third factor related to the individual will be high if all of the other cells, especially those related to work environment, are provided for. Thus he believes that evidence of low motivation is a red flag to look for deficiencies in information, resources or incentives.

Gilbert claims that any job that is supported in all six of the areas of the Behavior Engineering Model should "carry a guarantee of high competence, provided that management was structured so as to really deliver these things and had a clear focus on the mission of the job in the first place." (1978, p. 87). It also helps increase the likelihood of ethical decision-making.

## The Vantage Points of Ethical Theory

### *Normative Ethical Theory*

The normative ethical view of moral philosophical reasoning (Fleming, 1987; Kahn, 1990) emphasizes forming and prescribing a true moral judgment. The normative approach offers a rational critique of moral judgments and reflects on business practice (Trevino and Weaver, 1991). This value-driven normative approach (Kurtines, Azmitia and Alvarez, 1990) asks "what ought to be." Normative ethical theory expands our understanding of what 'ought to be' the ethical underpinnings in business, especially if the organizational environment has a great influence over the performance of individuals. The same applies when we look to the ethics of the performance. An individual's ethical intentions and performance may be overshadowed and begin to slip in an unethical environment.

Normative ethical theories have been argued for centuries beginning with the pre-Socratics in the 6th century B.C. The following is a brief description - a snapshot - of normative ethical theory, with the understanding that a complete description would require a 12-hour movie. There are various ways to classify ethical theories. I have chosen to place them into one of two categories: consequentialism (teleology) or nonconsequentialism (deontology). Each of these categories represents a vantage point - a perspective - regarding the purposes and processes of ethical decision making.

### Consequentialism

Consequentialism, commonly known to ethicists as teleology, examines the net benefit produced for all stakeholders. It evaluates an action in terms of the efficiency and effectiveness of its consequence (Arthur Andersen & Co, 1992). Thus, the rightness or wrongness of an action is determined by its consequences. People's rights, duty, their sense of justice, and their values are not of primary consideration, just the consequences (Bentham, 1979; Mill, 1863; Sidgwick, 1874). "The end justifies the means" is an expression used to describe consequentialism.

Consequentialism suggests planning, calculating, decision-making and evaluation should result in the best possible consequences for the organization's goals. These consequences are to maximize the satisfaction of the organization's constituencies, usually the owners or stock-holders. This can encourage creativity, innovation, productivity, and entrepreneurship. One question that a consequentialist asks is, "Which action will produce the greatest good?" To answer this question, he/she must also ask which action produces the greatest good for whom. In answering the latter half of this question, the field of consequentialism can be divided into two areas: utilitarianism and egoism.

### Nonconsequentialism

Nonconsequentialism is referred to as deontology by ethicists. It is defined as a moral philosophy that "focuses on the rights of individuals and on the intentions associated with a particular behavior" (Ferrell and Fraedrich, 1991, p.45). A deontologist believes that the moral rightness or wrongness of an action takes precedence over and, for the most part, can be judged independently of the consequences (Baron, 1991, Wagner, 1991). Where as the consequentialist conducts an ends analysis in determining ethical alternatives, the deontologist is more concerned with a means evaluation. In deontology, what matters is the nature of the act in question, not just its results (Shaw and Barry, 1989). Such actions as keeping a personal promise, abiding by the terms of a contract, repaying a debt, and ensuring fairness of distribution are considered "right" regardless of the consequences that follow (Beauchamp and Bowie, 1988).

Deontology emphasizes the importance of duty and motives in making and acting upon ethical decisions (Beauchamp and Bowie, 1988). A person's behavior is important as it binds us to (or prohibits us from) the action (Wagner, 1991). It provides a standard of

behavior through rules. Common deontological practices in business and industry include:

- distributing benefits and profit equitably;
- upholding constitutional rights;
- making decisions based on doctrines or codes;
- specifying hours of operation; and
- wearing uniforms.

(Brady, 1990, p. 22)

Deontological practices and standards "attempt to generate a total set of expectations that seem to preserve important relations and values" (Brady, 1990, p. 22). Establishing standards, however, does not guarantee ethical outcomes. What it does do is provide the individual with a set of guidelines to follow in ethical decision making.

### Summary

These two vantage points, consequentialism and nonconsequentialism, involve us in continuously examining our own sense of right and wrong and revising it as appropriate. With just a basic understanding of each vantage point, managers can help their employees view their problems with a wider-angle lens. By placing this examination of vantage points in the context of the first three cells (environment support factors) of the Behavior Engineering Model management can engineer an ethical environment. For instance, one of the factors in cell one of the Behavior Engineering Model is expectation. Those who hold a consequentialist vantage point in decision-making would set up employee expectations that emphasize profit and may not address the ways that profit is made. Non-consequentialists, on the other hand, would emphasize both profit and the process in which it is made. This simplistic example may seem obvious, but unless managers understand the different vantage points within the context of the work environment, they can not help create a climate that will allow both points of view.

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## LEARNING FROM LIFE-EXPERIENCES TO COPE WITH CHANGE The case of top-managers in a public service enterprise

Matthias Finger

### Abstract

This paper analyzes how top-managers of one of Europe's bigger public service enterprises (66,000 employees<sup>1</sup>) have learned to cope with increasingly rapid and profound organizational change. The outcome of this research is a typology of these managers in respect to their ways of approaching change. Five personality types and their relationships to change will be presented. Furthermore the quantitative representation of these types within the organization will be discussed. Finally, some recommendations for management development will be made.

### Background of the research

The background of this research is the trend toward globalization and the ensuing economic pressures, caused by the fact that the market economy is now being extended worldwide and into all sectors. The public sector is not exempt from these pressures, which have already led, in many countries, to denationalization, liberalization, and deregulation. As a result, many public enterprises are now also forced to become more market-oriented and client-centered. In short, public service and even government now need to be "reinvented," to use a favorite slogan of the current US administration.<sup>2</sup> This represents a fundamental change in the organizational culture -- and often as well in the organizational structure -- of many public service enterprises. Top managers are particularly challenged by these changes, as they need to alter their very understanding of their roles within the organization, shifting from the role of administrator to the role of manager. Though one can identify, as a result of this research, five different personality types and therefore five different ways of coping with such changes and challenges among the top-managers of this public sector organization, all these top-managers are nevertheless quite similar, as they tend to adapt to changes rather than initiating them. Whether this public sector enterprise will be able to face the challenges of deregulation and subsequent large-scale organizational change with the current management will, I believe, significantly depend upon future management training and other efforts of organizational development.

### Conceptual framework and research methodology

This research was an integral part of a two and a half day management seminar, during which the participants were to be made aware of their personal ways of dealing with change, of their strengths and weaknesses in this respect, as well as of their colleagues' approaches to change. This so-called "formative research" seminar was in turn part of a larger effort of the organization to help their collaborators deal with the profound changes the organization faces and will continue to face in the future, including the split-up into two separate functional units, downsizing, lay-offs, and others more. At the top-management level 11 such formative research seminars were conducted between Summer 1992 and Spring 1993 with a total of 190 top-managers.<sup>3</sup>

The conceptual framework underlying this seminar was the one of "life-world-oriented

<sup>1</sup> For obvious reasons the identity of this enterprise cannot be revealed. The author would like to thank this enterprise for this research opportunity.

<sup>2</sup> See: Osborne, and T. Gaebler (1993). Reinventing government: How the Entrepreneurial spirit is transforming the public sector. New York: Penguin Books; Gore, A. (1993) The Gore report on reinventing government. New York: Random.

<sup>3</sup> There are no women among the 190 top-managers of this enterprise.

adult education,"<sup>4</sup> as defined mainly by German scholars, where people are considered to live in more or less coherent life-worlds. In the case of our top-managers, one can assume that they have been socialized into this organization's life-world, as they have spent in average over 28 years with the company. Of course, their life-world has been ever changing, though probably at a slower pace than today. During their life, they thus have developed personal strategies to deal and cope with these changes: certain changes they have, for example, assimilated, others reinterpreted, and still others ignored. The core idea of life-world centered adult education is that, without any formal training, managers (as everybody else) will draw upon their previous experiences to guide their current behavior, i.e., in our case cope with new changes and challenges.

The used methodological approach -- the so-called "life-history approach" -- was coherent with this conceptual framework, and has been used by this author previously with other target populations.<sup>5</sup> Methodologically, this formative-research proceeded in four steps. A fifth step was added after the completion of the seminar. In a first step the main life-experiences, in particular experiences with change were recalled. Then, based on their recalled experiences, the participants elaborated each an individual graphic representation of their formative process, i.e., the process that has made them become the person they are here and today. In a third step, the participants mutually presented these representations to each other. They tried to understand the formative processes of their colleagues. In a 4th step they collaboratively elaborated in small groups of 3 to 5 members common graphic representations of their formative processes, thus inductively constructing types of similar ways of dealing with change. They also tried to characterize their types' strengths and weaknesses in respect to a series of questions about change. Finally, the groups presented their types and their characterization to each other. A discussion of the functions of the different types in the organization concluded the formative research seminar.

In each of the seminars of about 17 participants this way of proceeding was repeated, i.e., the types were each time elaborated afresh. Yet, rapidly it appeared that despite this independent way of proceeding, very similar, not to say identical types, reemerged. After 11 such formative-research seminars one can say with great confidence that there are five types of personalities among the top-management of this public service company in respect to their way of dealing with change. These are five types of personal-professional formative processes, which lead to five different ways of dealing with change. With a few exceptions, I was able to classify all 190 participants into one or the other of these types.

After the formative-research seminar, a qualitative description of each of the five types was written up. These five qualitative descriptions, along with four additional questions (scales) about their way of dealing with change, were sent back to the participants as a questionnaire, to which roughly four fifth of the individuals replied. 113 or 81% related themselves to the same type I had attributed to them during the formative-research seminar. Two thirds of the individuals who had not been correctly attributed belonged to the "value-oriented" type, who is particularly difficult to capture. In total, therefore, two thirds of the types have been verified.

### Typology of top-managers

The first outcome of this research was a qualitative typology of the major personality types found at the top management level of this public service enterprise. I will first

<sup>4</sup> See: Wildermeersch, D. and W. Leirman (1988). The facilitation of life-world transformation. Adult Education Quarterly, Vol. 39, No.1, pp.19-30.

<sup>5</sup> See: Finger, M. (1989). The Biographical Method in Adult Education Research. Studies in Continuing Education, Vol. 11, No. 1, pp. 33-42; see also: Jones, H. (1992). Biography in Management and Organizational Development. Management Education and Development, Vol. 32, part 3, pp. 199-206; Pedler, M. (1992). Strategy or Destiny? Biography Work for Organizational Learning. Management Education and Development, Vol. 32, part 3, pp.258-270; Torbert, W. and D. Fisher (1992). Autobiographical Awareness as a Catalyst for Managerial and Organizational Learning. Management Education and Development, Vol. 32, part 3, pp. 184-198.

qualitatively describe each of the five identified types, and then, based on their responses to the questionnaire, characterize their ways of relating to change. The final section will examine the quantitative distribution of these types within the organization.

#### Type "Multiple Tracks"

This type is simultaneously active in different areas: besides his professional and family commitments, he pursues at least two of the following other activities. For example, he has had or still has a military career, is engaged politically, or is active in the local community. Perhaps he is also actively engaged in sports, is interested in culture and in traveling, or has yet another hobby. Since his early youth he has always pursued these multiple interests. At times he is engaged on one track, at times on another, depending where things move forward. In this way, he has collected, through his life, a significant amount of experiences, and has steadily progressed professionally. If he encountered difficulties or was blocked, he avoided them by pursuing another track. Never in his life, did he rely on one track.

When it comes to change, this type has not an entirely negative attitude, though he is not actively looking for change either. He mostly prefers change along the rhythm and flow of his life. Then he goes with the flow and in this sense of continuity can accept and integrate changes. This multiple track type is therefore calm, relaxed, and reliable. He is relatively varied, pragmatic, flexible, and adaptable. He cannot be disturbed easily. His rich life experiences and his broad rootedness in a variety of societal fields give him a certain confidence in himself. His overview and multiple anchoring make him able to find consensus. But this personality type, though persistent, tends to be cautious and slow. His multiple interests scatter his energy, make him difficult to grasp, and little goal oriented. Creativity is not his strength. He moreover tends to avoid conflicts and obstacles, rather than confronting them. Once thrown out of his tracks -- perhaps by too many changes simultaneously -- it will be difficult for him to get back on his feet.

#### Type "Technocrat"

The technocrat has a solid basis, which is his professional competence. He has acquired this competence relatively early, i.e., already during his apprenticeship or university studies. He mainly looks for challenges that he can approach rationally. He thus identifies problems, and then looks for realistic and doable solutions. In doing so, he seeks to improve and optimize things, rather than invent radical novelties. Though the technocrat, as he moves up the organizational ladder, works less and less in his original profession, he nevertheless remains shaped by his core methodical, systematic, and analytical ways of doing. Over time he has thus acquired a solid professional basis. Only later in his career he perhaps finds time to become interested in politics and philosophy. The family offers him the necessary compensation to his professional activities.

Changes, for the technocrat, are before all problems that he seeks to solve. In doing so he can refer back to his solid technical knowledge, as well as to his professional experiences. He believes in the future and can be enthusiastic about technological progress. His strengths are his analytical way of proceeding, his logical argumentation, and his conceptual thinking. He is goal-oriented and professional. On the other hand, he has problems with uncertainty. If he cannot clearly grasp a problem, he leaves aside. Also, he cannot deal with more than one change at a time. He looks for conventional solutions and is cautious and conservative. In uncertain situations he retracts to his specialization. He tends to be an introvert and rather underdeveloped in emotional matters.

#### Type "Family Oriented"

The family-oriented manager has a stable professional life as well as a stable family life. Though he tends to see his profession and his family as being relatively separate, and makes efforts to live them separately, both mutually support each other: his solid family life

gives him the necessary stability so as to commit himself fully to his profession. Inversely, the constant progress in his profession allows him a secure family life and the necessary stability he needs. Changes in both areas, profession and family, would throw him off the track. Family and profession thus form for him an equilibrium. Never would he therefore risk his family life for his professional career. It is in this "family-profession" equilibrium that this type has constantly progressed.

Change, for this personality type, is before all a threat to his equilibrium. He does not initiate change, but let it happen and then tries to make the best out of it. He is not necessarily a career type, but he is responsible, constant, straight, credible, and open. His strengths are his balance, his loyalty with respect to the organization, his honesty, his openness, and his confidence. On the other hand, the family-oriented type tends to be conservative, takes little risks, and avoids conflict. He is slow, and tends to be a perfectionist. If one shakes the basis of his equilibrium, negative reactions are likely.

#### Type "Value Oriented"

This type has clear and solid value orientations, which can be of moral, ethical, or religious nature. Generally, the human being is at the center of his values system, both in his professional and his personal lives. During his life these values' orientations have grown stronger and now form the core of his identity. He tries to live accordingly. These values motivate him personally and professionally and stimulate him in his confrontation with others. On the other hand, what is opposed to these values will slow him down. His values therefore are for him a useful tool that allow him to critically analyze his environment, and to define himself in relationship to it. Ultimately, the value-oriented type would like to create an environment that is in harmony with his values orientations.

Change, for this type, is before all a benchmark against which he measures his values system. Change stimulates him intellectually, liberates his creativity, and makes him dynamic. But when he sees that change goes counter to his values orientations, he tends to withdraw and oppose it. His strengths are his idealism, his ethical attitudes, and his critical thinking. He questions existing values, and is able to deal with the unusual. He is open to unconventional questions and solutions. He is convinced and can convince. He looks for truth. His intellectual dimension strengthens his abilities for integration and conceptualization. On the other hand, this value-oriented type tends to be rather touchy, emotional, and egocentric. He has relatively little humor, can be ideological, rigid, and cynical. He loves intellectual debates, and at times confrontations, which can lead and often do lead to conflict.

#### Type "Player"

The player has broadened his horizon throughout his life. Perhaps he has changed his profession, pursued continuing education, or has traveled and learned to know other continents and different world views. In the late 1960s he has possibly acquired important experiences, which continue to shape him until today. He sees his personal and professional commitments as one unity. He seeks to put into practice the lessons drawn from experiences he has once made. The player thus can look at things from quite different perspectives. He cannot be nailed down and has often difficulties to take a stand. He mainly is sensitive to social and political changes, and gets excited if he can participate in or even initiate such changes.

Change is therefore a central element of the player's personality. To a certain extent, change is also a game for him. Given his core experiences during the 1960s, the player seeks to change structures. He likes to create unrest. He takes advantage of the free space offered to him, and constantly experiments with change. He always knows how far he can go. His strengths are his creativity, his curiosity, his humor, his lightness, and his engagement. The player does generate enthusiasm. On the other hand, he is often superficial, individualistic, and overactive. He is independent and identifies less with the organization than all other types.

### Attitudes vis-a-vis change

The big majority of the top managers of this public service enterprise are straight, honest, and correct people. They very much identify with the organization and are very loyal. Most of them reflect very traditional formative processes, where the family seems to be a central factor. Stable family relationships indeed predominate. There are hardly any eccentric individuals, and their attitudes vis-a-vis change reflect this normality.

The following paragraphs relate the answers of these 139 individuals who have responded to the questionnaire that I have sent back to them after the formative-research seminar. The first question pertained to their personal role in the organizational change process. The respondents had the possibility to locate themselves on a 1 to 10 scale, ranging from "initiation of change" (value 1) to "consolidation" (value 10). Between, there was "vision" (value 2), "goal definition" (value 4), "planification" (value 6), and "realization" (value 8). Not astonishingly, players and value-oriented individuals located themselves closer to initiation and vision, whereas multiple track and family oriented top-managers tended to position themselves near realization and consolidation. Technocrats were about in the middle, i.e., between goal-definition and planification. If one looks at the quantitative distribution of all types, it appears that most of the top managers of this enterprise see their strength mainly in terms of realization and consolidation. One can say that this enterprise, therefore, -- except some rare individuals -- lacks a visionary element, though such vision is badly needed on the top-management level, especially in times of rapid and profound change.

Asked whether they rather focalize on goal-attainment (value 1) or rather on the human factor (value 10) when it comes to managing change, the vast majority of the top-managers remained undecided. Only the technocrats clearly opted in favor of goal-attainment. Overall, they do not seem to focalize enough on the people in the organization, though especially the recent management literature clearly states that, in times of rapid organizational change, people are k.o.:

A similar picture emerges when asked how they approached change in the organization, i.e., rather individually (value 1) or rather in teams (value 10). Players and multiple track types tend to favor a team approach when it come to managing change, whereas family- and value-oriented types clearly prefer an individual approach. In average, the surveyed top-managers of this public service enterprise tend to favor individual problem-solving and change-management strategies over collective ones, though again the recent management literature clearly sees this as an organizational weakness.

It is therefore not astonishing that, when asked whether change makes them rather enthusiastic (value 1) or rather skeptical (value 10), the majority of the surveyed top-managers tend to be on the skeptical side. Only the players are significantly more enthusiastic than the others, whereas the family-oriented types are particularly skeptical.

Overall, one can identify, when it comes to dealing with change, two extreme types among the top managers of this public service enterprise: on the one hand there are the family-oriented types, who see their strength in terms of realization and consolidation. They prefer to approach change alone, and their attitudes toward change is rather skeptical. They clearly are the majority in this organization. Players, on the other hand, see their strength in initiating change and in elaborating visions. They prefer to approach change in teams, and feel quite enthusiastic about it. Ideally, of course, an organization -- at least at its top-management level -- should be composed of all five types, and perhaps even other ones not currently represented. The optimal mix, of course, also depends on the evolutionary stage the organization is in. Especially in times of rapid organizational change, players and other types who favor change should be allowed to set the tone. In this public sector enterprise, at least on its top-management level, unfortunately, the opposite seems the case. As I will show in the next section, the family-oriented types, for example, are three times more frequently represented than players. Overall, the top management of this enterprise is rather old, the average age being 53 years. The majority of these top-managers therefore tend to have a rather conservative approach to change. They generally react to change, rather than initiating it. Especially two types -- the multiple track and the family-oriented ones -- are strongly shaped by the historical culture of this organization, which has until very recently not been particularly enthusiastic about change.

I would recommend that management training and management development efforts

should be thought over in light of this analysis. Special training should be targeted at these top-managers with a learning potential in respect to change. Similar considerations on personality types should also be fed into the management selection and promotion process.

#### The various types within the organization

After having qualitatively characterized the five identified personality types, we now need to look at their quantitative distribution within the organization overall, as well as within its functional and its various organizational units. This will lead to yet another type of recommendations for management training and development, focusing this time on teams and their collaborative learning.

Statistically, the five above identified types are distributed in the following way among the top-management of this public service company:

	N	%	%
Type "Multiple Track"	44	23.2	23.9
Type "Technocrat"	44	23.2	23.9
Type "Family Oriented"	44	23.2	23.9
Type "Value Oriented"	37	19.5	20.1
Type "Player"	15	7.9	8.2
	6	3.2	Missing
Total	190	100.0	100.0

Among the 190 top-managers of this public service enterprise there appear to be as many Multiple Track types, as there are Technocrats and Family-oriented types. Players are clearly a minority. This distribution changes a little bit at the detriment of the value-oriented types if one considers only these individuals for whom the types were verified through the questionnaires. In any case the multiple track and the family oriented top managers, i.e., the most conservative and change unfriendly types, are clearly a majority in this organization.

If one looks at the three main functional units within the organization -- functional unit A and B representing two different types of services, whereas functional unit C is in charge of linking both together --, one can see an even bigger imbalance. For example, the top-management level of functional unit A is mainly composed of multiple track types and technocrats, while the top-management level of functional unit B tends to be composed of family- and value-oriented types, a combination that contains potential conflicts.

A similar analysis can be conducted on lower organizational levels, i.e., particular organizational units such as marketing, personnel, accounting, etc. This kind of analysis allows one to identify potential conflicts and synergies within such specific organizational units. In almost all these units players are heavily underrepresented. To recall, players are these individuals who mostly enjoy change and can generate visions. There is therefore a danger, within this organization, that vision and creativity is lacking and change be approached purely reactively and technocratically. In addition, one can observe that, in certain organizational units, there is also a clear lack of Multiple Track moderators, which in some units increases the likelihood of conflict. Anyhow, it would be most useful to analyze each organizational unit in more detail as to the composition of its personality types. Certain combinations of types can stimulate each others, while other combinations can be blocking. In addition, certain combinations of types clearly lead to conflicts. Here, management training, conceived as team-building, action reflection learning, or collaborative problem-solving, could clearly improve organizational effectiveness.

#### Concluding remarks

An organization can only learn as fast as its collaborators and its teams, especially at the management and the top-management levels. Before exchanging its managers, there generally exists a possibility to better make use of the potential of its various types.

Indeed, most of the five types I have identified above still have a certain learning potential when it comes to dealing with change. This is particularly the case of the multiple track type, as well as of the player. The organization can tap into this learning potential by (a) making the types aware of their strengths and weaknesses, (b) by making the different organizational units aware of their composition in terms of personality types, and (c) by helping the various types and teams better interact and collaborate with each other. (d) Finally, the organization might also consider bringing in new, complementary types of personalities. Anyhow, such collective organizational learning needs to be properly planned and facilitated. I hope that the formative research approach I have presented here can become a contribution to initiate and facilitate such organizational learning more consciously, and by this deal more effectively with increasingly rapid and profound organizational change.

## Russian Organization Development from A Russian Perspective

Gary D. Geroy  
Jan B. Carroll

### Premise and Rationale For Study

Since *perestroika*, the Commonwealth of Independent States (CIS), including Russia, has evolved cautious acceptance of sojourner business and development interventions, including those of western Human Resource Development (HRD) researchers and consultant practitioners. With traditional views to commercial and philanthropic opportunities, western interests have invested over \$3 billion in Russia alone (Kvint, 1993). Central to western initiated program and philosophical exchanges is the presentation of ideas and processes which directly or indirectly intend to influence evolving social and economic transformations.

Such contrived exchanges have caused face-to-face interactions among people from different cultures wherein professionals, who embrace concepts grounded in their culture assemble for problem solving, exchange, or development and speculative gain initiatives. Yet commonly, the assistance minded sojourners unconsciously have expected the target group to accept without compromise the suggested norms, values, and behaviors, thereby maximizing the perceived opportunity gain from the effort.

A two year field-based effort to define Russian organization development (OD) from a Russian practitioner and researcher perspective was completed. The premise of the study was that OD as theorized and practiced by western HRD professionals, if universally adopted or imposed in a Russian (or other cross-culture) environment, without consideration of cultural or nation state factors, may not achieve the unifying positive managed change or problem resolution outcomes intended by the effort. A normative perspective under girding the research was that western OD consultants should know how their models, knowledge, and techniques will transfer to use in Russia, other Eastern European countries, and other CIS members. This was consistent with the researchers' previous experience with Russian OD practitioners who expressed concern for understanding western models, to better understand the western sojourner in Russia, rather than how to better adopt western methods.

### Theoretical Foundations For Study

Behavioral science researchers and academicians submit evidence that OD is essentially an Anglo-Saxon phenomenon and process (Jaeger, 1984; Wigglesworth, 1987). Studies by Amado, Faucheux, & Laurent (1991), Maslyk-Musial (1989), and French (1988), suggest that OD (by western definition) enjoys little success in Latin, Polish, and Oriental environments. In part this may be due to the U.S. cultural influence on social science to explain and value behaviors and processes by fitting phenomena into neat relational boxes. Existing international OD research suggests that this approach to explaining and managing OD change processes in other cultural value laden environments may be limiting.

Cross-culture OD efforts studied in France, Thailand, and Poland support the premise that direct successful transfer of western theory and process is unlikely. This does not mean that OD is not practiced in non-western environments. Rather, Waller (1988) reports OD activities in Canada, England, Norway, Sweden, Finland, Holland, Japan, the Philippines, Australia, and New Zealand. Before Waller's research, Jaeger

(1984) utilized Hofstede's framework of dimensions for differentiating national cultures, as basis for suggesting OD-type interventions' potential for success in 40 countries.

Other than these studies, there appears to be a lack of effort to explain or evolve theory under girding the OD consultative process which are grounded in non-western settings. Considering the increasing OD commercial or philanthropic exchange with Russia, it is important to understand how Russians view OD, and how this perspective is facilitated or impeded by western OD sojourners.

### **Overall Research Design**

The research was driven by one question: what is OD in Russia? Qualitative in design, the resulting data were intended to illuminate the larger issues associated with cross-culture transferability of American OD to non-western cultures.

A DACUM event was the centerpiece of the research, supplemented with extensive observational and informal interview data. Triangulation of the data were supported by Russian OD practitioners engaging in extended applied case study activities. The observational activities extended to teaming with Russian consultants in formal work situations as well as informal social situations. The case studies presented by Russian OD consultants were used to facilitate; 1) the inductive development of theory, and 2) the refinement and specification of both the evolving and existing theories. Most of the DACUM and case study participants were bilingual Russians; the field investigator spoke rudimentary Russian.

The study's DACUM activity generated a Russian list of eight areas of responsibility and ninety-three OD tasks which were thematically analyzed. The Russian-identified OD tasks were defined into three categories as submitted by Eubanks, Marshall, & O'Driscoll's (1990) as a model of OD skill areas. A matrix analysis utilizing Eubanks', et al. (1990) model of OD skill areas, and a synthesis of western OD literature describing areas of OD effort was employed as a scaffold for the DACUM information gathered in Russia.

### **Findings:**

All research derived data were organized and analyzed around three areas of OD labor effort, concerns, and activity: people professional issues, data utilization and considerations, and delivery processes. These are briefly discussed.

#### **People Professional Issues:**

Data analysis suggested that contrary to Americans' use of the structure of the organization to facilitate interaction with people, the Russians' use the structure of their relationships as the vehicle of access. Of the three labor effort areas, Russians are most concerned with their professional structure, functional roles, and integrity of the client-OD consultant relationships during the intervention processes. In follow-up work to the DACUM event, Russian consultants listed five values which should under gird the professional structure and practices of Russian OD consultants. These included:

- 1) Freedom from necessity to choose [among themselves, to compete];
- 2) Positive movement, as in a family [among themselves, for support];
- 3) Mutual trust (professional), self-realization, and self-development;
- 4) Actualization and realization of common resources of their [professional] community and of each member;

- 5) Highest professionalism, creativity, positive relationships, improvement, stay yourself, not hurt others.

The DACUM data, supported by the observation and case study data, indicated solid congruence of Russians' espoused theory and their theory-in-use concerning these characteristics or attributes of OD consultants. Four issues emerged as critical Russian OD behavior. According to pre- and post-DACUM inquiries, predicting negative consequences of work, knowing what a consultant can do professionally, explaining these limitations to clients, and differentiating relationships between client and customer, appear to further define the role Russian OD consultants believe they play with and among other people.

It was apparent that in their historically totalitarian social environment, Russian consultants have had limited opportunities to work professionally in teams or within a professional network. The emerging Russians view of a professional OD organization or network is that of an opportunity to overcome the belief that while OD consultants are smart and experienced, they are not professional--at least not in the way Americans describe professionalism. Contrary to this view, American literature concerning people-oriented network philosophies exemplify behaviors which are centered around team and group participation and activities intended to advance friends, promote self, connect and interact with others to share vision, and consider the role of relationships in life or career planning.

#### Data Utilization and Consideration

The DACUM event suggested that data considerations included assembling and disseminating information about the profession itself, and the role of data in influencing and formulating OD interventions. Supplemental data, suggested a different orientation to the use of data between western and Russian OD which could be explained by the comparative maturity of the profession as much as by its cross-cultural nature. Defining and developing the profession, building a professional community, and disseminating information about the profession are paramount to the Russians in their early stages of developing and defining their discipline and profession. The Russians were very specific about the need to "make public presentations" and "educate clients." This suggests Russians view a need to support communication concerning their emerging professional profile.

Additionally, Russians have a high concern for establishing data and informational connections with significant organizations, educating new colleagues, being able to share professional knowledge and experience, establishing informational exchange in the country and internationally, develop and maintain high standards of their professional network.

Finally, the DACUM and other observational evidence suggest that data-based interventions are not being used in Russia. The research suggests that this is attributable to the profession's orientation to individual versus organizational system issues.

#### Delivery Processes

Eubanks et al. (1990), Lippitt and Lippitt (1975), and French and Bell (1973) collectively define western OD delivery roles as: process specialist, technical specialist, trainer/educator, and role analyst. Russians describe their five primary delivery tasks in very client-focused affect terms: "help client to formulate aims, goals, purposes; be able

to establish trust and respect with client; find common language with client; be able to help client clarify problems in the client's language; and educate clients."

The observational and case study data showed nineteen behaviors which described Russian delivery of interventions to clients. Described according to the chronology of a typical western OD experience, the behaviors are associated with entry, contracting, diagnosis, intervention(s), evaluation, and exit. A review of promotional fliers of two OD firms indicated valued aspects of other fields of expertise besides managing planned change. These were described in the DACUM data by such general tasks as: "design consulting process according to each situation; design consulting process according to order; get results--meet request of client".

### **General Discussion**

In general, reports of what is happening in non-western OD include more individually-oriented activities than organizationally-directed interventions. In non-western settings, depression and vast uncertainty around economic and political conditions dictate certain interventions while preventing others, and there is confusion and/or ignorance about OD itself.

Many of these characteristics were observed during the field work in Russia. While Americans have diverse education, training, and experience in business, finance, marketing, public relations, training and development, and OD, almost all the Russians involved in this study were educated, trained, and experienced as psychologists. Previous to the schooling in psychology, some were professional engineers, computer scientists, or military officers. The research suggested that the psychological preparation influences the tendency toward individually-focused interventions. Whether these are totally intervention focuses of choice, or based on lack of organization system knowledge was not clear.

OD in Russia is operational as a profession; it is similar to OD in the West; and OD practitioners are anxious for professional association in-country and internationally. While similar, Russian OD is not identical to OD as known and studied in the West. Interventions are frequently more personal, focusing on increasing self-esteem of managers. OD experience in Russia appears, to date, to have been focused on the kinds of people-focused interventions necessary for managers who have seldom, if ever, made decisions, solved problems, or facilitated meetings.

OD in Russia does not appear to be historically bound. While the depth of Russian history societally is almost incomprehensible to an American, still it is most likely not the primary force driving OD today. The compelling thrust is change, which in its own way in 1990's Russia is as strong as historical influences. As westerners accept OD to be about change, they should not be surprised that the Russian profession is developing in ways intended to help plan and manage change in response specific to their political and economic transformations.

### **Implications of Results**

Ethnocentrism causes many people to want to make the entire world just like theirs. Believing in the inherent superiority of their own culture, individuals and groups in perceived states of relative advancement may look down on those who don't belong or who are foreign, measuring everything by their own experience and their own culture (Harris and Moran, 1991). Western OD practitioners are not immune from this condition. Rather, the research suggested that we may be guilty of taking our models of OD to

Russia for imposition, without consideration for transformational or contextualization needs, upon the emerging Russian OD profession.

While knowledge sharing is important, the dignity of evolving a new profession in the time and space where it will be practiced belongs to the Russians. The western normative "this is the way" approach may be effective in imparting information, but less effective or acceptable in actual practice to the emerging Russian OD field.

The value of doing no harm and helping the entire organization was expressed in the self recognition that Russian professionals--consultants and clients--are not at this time business people. They are not experienced in shared leadership and expressed frustration at inability to do anything in a painful time of drastic transition.

That the literature addresses obstacles to OD in non-western cultures is fitting when describing OD in Russia. The negative frame of reference is prevalent in Russia. Two differences between Russians and Americans that Russians articulated were 1) energy: American energy is as a battery--steady and on-going; Russian energy is as an explosion--random and intense and 2) frame of reference: Americans tend to use positive framing and vocabulary such as "opportunity" and "challenge;" Russians use negative framing and words such as "problems" and "difficulties."

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## **Organizational Factors Relating To Employee Acceptance Of Peer Rating In Industrial Organizations**

Gary D. Geroy  
Philip C. Wright

### **Premise and Rationale For Study:**

Substantial research has been devoted toward; understanding the interaction of rating source and methods - characteristics and motivations of raters - perceived purpose of evaluation... upon employee acceptance of, and satisfaction with, performance ratings. Considering the high validity and reliability of peer evaluations reported by research, wide adoption of these techniques to assess employee performance, especially in high performance work team environments seems appropriate. Yet, as reliance on high performance work teams increases as a central strategy to many continuous quality improvement theories and models, research shows a widespread reluctance to use peer evaluation strategies to support this effort (Klein & Belgard, 1989; Pasmore, 1989). What research has not examined, is how organizational factors and management philosophy can influence employee perception of, and commitment to, the peer appraisal process.

### **Overall Research Design:**

The research design was driven by the following research question; what are the organizational factors that relate to user acceptance of peer evaluations in a high performance work team environment? A national purposive sample of manufacturing oriented organizations was made based on organization's experience with peer appraisals, and their willingness to allow their workers to participate in the study. Participating organizations produced final demand products. From these organizations, only first level workers with personal, formal peer evaluation experience were selected. Returned survey sample size was 79% (399) of qualified accessible population.

Information obtained from the survey was summarized using frequency counts, means, and percentages. The Chi-square test for independence was used to test for relationships between each survey questions about key organizational factors and employee acceptance of peer appraisal. In addition to the Chi-square analysis, a regression analysis was performed to assess the degree of correlation between variables. The survey questions were then grouped by the key organizational factors categories, and an analysis of variance was used to calculate one and two-way interactions of the organizational factors and responses to questions regarding satisfaction with peer ratings, as well as the helpfulness and accuracy of the data obtained from these evaluations.

### **Findings:**

It was the goal of this study to assess a number of manufacturing related organizations, in which production level employees have experienced peer evaluation, against those organizational factors typically associated with high-commitment work units. It was hypothesized that there would be a positive correlation between the level of peer appraisal acceptance and the degree to which employees perceive that the high commitment work system factors have been implemented. The specific findings are discussed by factor.

**Employee Acceptance of Peer Evaluations:** Employee "acceptance" of peer evaluation was defined by two concepts: one, accepting the feedback information as valid indicator of performance, and two, having some level of satisfaction with the administration and results of the peer appraisal process. In this study, 43 percent of the respondents indicated that the evaluation feedback was helpful, and 36 percent believed the data to be accurate. A smaller number of first-line employees (25%), responded positively to being satisfied with peer appraisals as an evaluation process. More than one half of the participants indicated dissatisfaction with this method of evaluation.

Employees who participated in the study expressed a relatively low level of peer evaluation acceptance. These results are consistent with findings of several studies that have investigated user acceptance of peer evaluations (Cederblom & Lounsbury, 1980; DeNisi, Randolph and Blencoe, 1983; Downey, Medland & Yates, 1976; Love, 1981). However, the role and type of organizational factors which influence the acceptance of peer evaluations, until this inquiry, remained un-investigated. The results of this research are presented and discussed by organizational characteristic.

**Role of First Line Management:** A significant relationship was found between the perceived role of first-line supervision and worker acceptance of peer evaluations. When the direct supervisor was perceived as the "coach" of the work group and employees were allowed latitude to decide how to accomplish the work, the perceived accuracy of information received from peers, its helpfulness, and overall acceptance was more positive. No significant relationship appeared to exist between acceptance and the role of management when the supervisor was seen as having direct responsibility for the performance evaluation.

A significant 2-way interaction was discovered between the role of supervision and the organization's commitment to human resource development. Employee satisfaction with HRD, in conjunction with high ratings for the role of supervision, had a moderate affect on peer evaluation acceptance. Conversely, low scores in HRD showed a significant negative affect on these relationships.

**Recognition and Reward:** Chi-square analysis and the analysis of variance showed a significant relationship between an organization's recognition and reward systems and employee acceptance of peer evaluations. Regression analysis also showed a positive correlation between this organizational characteristic and acceptance of peer appraisals.

Analysis of 2-way interactions suggested that workers' ability to identify their efforts with the outcome of products or services they provide, as well as their feelings about the significance of the work they do, in combination with their feelings regarding recognition and rewards received from management, had a strong impact on their opinion regarding the accuracy of peer feedback. An inverse relationship appeared to exist between perceived accuracy of the data and meaningful work. It appears that employees who rated the recognition and reward systems as high, yet indicated that they are engaged in work that is not considered significant, still scored the perceived accuracy of the information from peer ratings as fairly high.

**Skill Variety:** Employee opinions regarding the variety of work performed appeared to relate strongly to their perceptions regarding the helpfulness and accuracy of the feedback received from peers. Furthermore, the degree to which employees identified with their work strongly influenced their perception regarding the value of the feedback and their overall satisfaction with peer appraisals. In addition, the 2-way interaction between this organizational characteristic and the process used to conduct

peer evaluation had a significant affect on the perceived helpfulness and satisfaction with this form of performance appraisal. In conjunction with worker autonomy and trust in management, the data showed a direct correlation with the perceived helpfulness of the peer feedback.

Specific questions regarding worker involvement in many different kinds of tasks and the degree to which employees rotate among the tasks assigned to the work group showed no significant relationship to the three dependent variables tested. The only exception to these findings suggested that personal involvement in the different tasks assigned to the group related positively to the perceived helpfulness of the feedback data.

Identification With the Work: The degree to which employees identified with the outcome of their work strongly influenced their perceptions regarding the value and their overall satisfaction with peer evaluations. In conjunction with ratings of satisfaction with recognition and rewards, a direct relationship to the perceived accuracy of the information was also observed.

No relationship was found between specific questions regarding workers' knowledge about the effect of the quality of their work, or their ability to spot and correct quality problems before they are passed on to subsequent operations, and their satisfaction with peer appraisal. These dimensions of work design, however, showed a strong effect on the perceived accuracy and helpfulness of the data.

Perceived Significance of The Work: Data from the analysis of variance showed no significant relationship between employee opinion regarding the meaningfulness of work and acceptance of peer evaluations. A 2-way interaction, however, was observed between management recognition and reward systems, the significance of the work performed, and responses to questions dealing with the accuracy and helpfulness of the feedback data.

The Chi-square analysis showed no correlation between specific questions regarding the degree to which employees perceived the work to be meaningful and their responses to overall satisfaction with peer appraisals. Responses to each of these questions, however, showed a significant relationship to the perceived helpfulness of the feedback received from coworkers.

Autonomy: The Chi-square test suggested that there was a significant relationship between each of the questions that were grouped into the Autonomy category and peer rating acceptance. However, analysis of variance of the main effects of these questions taken as a group indicated that only employee perception regarding the accuracy of peer evaluation data was related to this organizational characteristic

Level of Employee Involvement: The analysis of variance showed no significant main effect or 2-way interactions between levels of employee involvement in organization or job improvement activities and responses to the dependent variables.

Employee Involvement in Team Work: No significant relationship was discovered between the level of teamwork employees experience on the job and acceptance of peer evaluation.

Trust in Management: A significant relationship was discovered between the level of trust employees have in management and their perception regarding the accuracy, helpfulness, and overall satisfaction with peer appraisals. The test of

independence applied to individual questions, as well as to the grouping of these questions in the Management Trust category, also appeared to be significant. The 2-way interaction between employee trust in management and the degree to which employee trust in management and the degree to which employees perceived the work to be meaningful showed a significant impact on the response level to overall employee satisfaction with this form of evaluation. The analysis showed that when trust in management was high, the lack of meaningful work significantly decreases the overall level of satisfaction with peer evaluations. Trust in management was also observed to be interactive with the variety of work experienced by first-line employees. This 2 way relationship affected the degree to which feedback data was perceived to be helpful to the workers.

The rating process used to conduct peer appraisal also appeared to be interrelated with management trust and employee opinion regarding the accuracy of the feedback data. Low ratings in response to the evaluation process, even when trust in management was considered high, resulted in a significant reduction in the participants' beliefs about the accuracy of the data. Similar data also shows that high credibility with the evaluation process had a significantly positive effect on the perceived accuracy of the data, even when trust in management was low.

**Trust Between Workers:** There was a significant relationship between the level of trust employees have in each other and their perception regarding the accuracy, helpfulness, and overall satisfaction with peer appraisals. Although this finding may be obvious, there seems to be a noticeable lack of discussion in current literature regarding the influence of this organizational factor on peer evaluation acceptance and its role in the effectiveness of self-directed work teams. Although the literature touches upon employees concern over future retaliation, and that peer evaluation itself may cause distrust among members of the group, results are mixed on this topic and appear to ignore the cause and effect relationship of trust on peer rating acceptance. Low ratings in autonomy had a significant negative effect on the value of peer data even when trust between workers was rated high.

**Human Resource Development:** Values derived from the Chi-square test for independence showed a significant relationship between all individual questions in this category and the three dependent variables. In addition, results from the analysis of variance suggested a main interaction effect between an organization's commitment toward developing worker capabilities and responses to peer appraisal acceptance.

**Peer Evaluation Process:** The process used to conduct peer appraisals appeared to be a significant determinant in worker acceptance of this method of performance evaluation, particularly when the process evaluated aspects of the work that are considered by the worker as important in the job. The significant relationship between employee perception of whether the rating process evaluated relevant aspects of performance and general worker acceptance of these ratings, supports findings reported in other investigations.

### **Recommendations:**

The following recommendations are presented to help facilitate effective peer evaluation programs for first-level employees industrial organizations.

**Management Roles.** The role of management must be congruent with - and supportive of peer evaluations. Specific elements include workers being directly responsible and accountable for some portion of the evaluation process and not simply

providing another source of input that may be used (or not be used) at the discretion of the immediate supervisor. In addition, rules and regulations should make it easy, or at least acceptable, for employees to experiment with new ideas.

**Recognition and Rewards.** Consequences associated with peer evaluation should be meaningful in terms of pay or other perceived rewards. Recognition and reward systems also play a major role in determining the levels of trust experienced not only between workers and management but also among workers. When the reward system strongly encourages competition for limited promotional opportunities, training, and selection for desired jobs, worker confidence in the peer evaluation process may be in jeopardy.

**Trust in Management.** The perceived fairness of the evaluation system, as well as the explicit (or implicit) purpose of the rating outcome, may have a significant impact on an individual's feelings about job, and therefore, personal security, affiliation with society, and social esteem. In this regard: 1) supervision must show genuine concern for the person and promote a feeling of fair treatment; 2) the work environment should be supportive of risk taking; 3) workers must believe that they can influence important decisions that affect them; and 4) workers should feel a partner in the organization.

**Trust Among Workers.** Most of the existing research regarding user resistance to peer evaluation had focused on trust among workers. Issues of popularity contests, friendship bias, potential for retaliatory ratings were central themes of reported research. In this study, a strong positive correlation was observed when the fundamental value of the organization fostered an atmosphere of trust among employees, including 1) workers consulting with each other when implementing changes that affect the manner of work accomplishment; 2) workers feeling they can rely upon each other; 3) workers sharing and using a common set of values when making decisions.

**Human Resource Development.** At the top of individual development and aspiration theories (ie: Mallow), self actualization, including the need for creativity and achievement, emerge as pinnacle achievements. An organization's commitment to help individuals gain the competencies required to satisfy this need for achievement appears to have a significant influence on peer rating acceptance. Methods to facilitate human resource development activities include: 1) transferring the responsibility for developing job skills and knowledge of managers to employees; 2) setting aside specific times for workers to develop their capabilities; 3) removing road blocks which hamper development activities; and 4) designing the work so that employees can utilize their full potential.

**The Peer Rating Process.** Three factors regarding the conduct of the peer evaluation process appear to be significant. These include direct employee involvement in the design of the peer rating program, the level of training received before implementing peer appraisals, and employee perception of whether the rating process evaluates relevant aspects of performance.

#### **Summary Discussion:**

It appears essential for organizations to develop an atmosphere of trust between management and workers to assure that peer rating systems will not jeopardize perceived security or status among peers. Secondly, management structure should be supportive of the peer rating process selected. This may require management forgoing traditional controls. Third, consequences for participating should be meaningful in terms of rewards. Finally, employees should be involved in - and accountable for - the evaluation criteria and outcome of the ratings.

Factors such as the variety and complexities of tasks performed, the degree to which workers identify with the results of their efforts and find the work to be meaningful, the level of involvement in teamwork, along with the autonomy, appear to be only secondary influences on the first-level employee acceptance of peer evaluations.

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## ORGANIZATIONAL AND OCCUPATIONAL CULTURES: A COMPARATIVE INQUIRY THROUGH ORGANIZATIONAL STORIES

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This paper presents data which suggests that organizational norms and values are formed by a myriad of occupational cultures, whose differing perspectives transcend the boundaries of any one organization. Our study explored the psychological dimensions that shape the comparative beliefs of executives and human resource developers. A key element of the research design was our ability to penetrate the unconscious, as subjects are often incognizant of the underlying motives that drive their actions. Story line components can serve as useful and relatively unobtrusive vehicles for bringing the storyteller's value systems and expectations for interpersonal behavior to the surface.

The remainder of this paper begins with a delineation of the study's theoretical framework. Then, descriptions of the methodology and key findings are presented. A discussion of emergent themes and implications for theory development follow.

### Theoretical Frame

#### Occupational Cultures

Occupational cultures form around the belief that members have the exclusive right to perform a given set of interrelated tasks. Conditions necessary for subculture development are social interaction, shared experiences, and similar personal characteristics (Trice & Beyer, 1993). Member-controlled training and professional associations help systematize the work and foster bonding through technical and emotional support.

Research in occupational cultures is diverse and ranges from shipyard workers (Green, 1965; Mars, 1979) to cocktail waitresses (Spradely, 1979). Overall, the findings indicate that members develop a similar world view and act as reference groups through self-definitions, common and unusual emotional demands, a failure to socially distinguish work from non-work, and a belief that their self-image is enhanced by their work (Salaman, 1974; Trice & Beyer, 1993; Van Maanen & Barley, 1984).

#### Meaning-Making

All cultures operate from cognitive models by creating belief systems to filter expectations for appropriate and inappropriate behavior--that is, a kind of meaning-making. Research in cross-cultural differences reveals that people tend to rationalize differently with members of their own culture than they do with foreigners (Adler & Graham, 1989). While this process may reinforce professional identity, it can impede and ultimately reduce organizational effectiveness.

#### Qualitative Data from Organizational Stories

Stories act as a kind of cultural code. In corporate contexts, they help employees make sense of their work-place and their reasons for working (O'Reilly, 1989). The analysis of stories has gained increasing credibility among researchers of organizational culture (Martin, 1982; Schein, 1985; Wilkins, 1978; Wilkins & Martin, 1979). Stories are seldom factual. Instead, they reflect what people believe should be true. It is therefore important to understand subjects' cultural norms as they convey them rather than imposing an external standard to understand or analyze them.

## Methodology

### Setting and Subjects

Our theory-driven sample (Glaser & Strauss, 1967; Strauss & Corbin, 1990) consisted of 24 top executives and 29 human resource developers employed in 15 large organizations. In the executive sample, two subjects were chief executive officers and the remainder were within two reporting levels of the CEO. We deliberately collected data in organizations with a minimum of 10,000 local employees. This is because in large organizations, executives and HRD practitioners tend to manage broad, multi-functional responsibilities compared to those in smaller firms, and we wanted to assess various cultural patterns across these functional areas.

### Focus Questions

Few empirical studies have focused on executives (Sims & Lorenzi, 1992; Trice & Beyer, 1993) or human resource developers (Marsick, 1990) as distinct cultural entities. A comprehensive search of numerous data bases yielded no empirical evidence on executives' belief systems. This gap in the literature highlighted the need to initially examine the following focus questions:

What are the perceived roles that executives and human resource developers attribute for themselves and for others? What resources are required to carry out these roles? What are the perceived positive and negative forces (people and/or situations) in relation to important goals? What are acceptable conflict resolution methods? What underlying organizational lessons or morals are implied in stories told by each subject group? Within an occupational culture, are expectations for organizational behavior internally consistent? Are some beliefs stronger than others? Does diversity in background (i.e., gender, formal training, organizational rank, industry type, etc.) parallel a difference in belief systems?

### Data Collection and Analysis

Procedurally, subjects were asked to tell a story about any event portraying any cast of characters that could have occurred in their organization within the last six months. Stories were recorded verbatim. In addition, an interview protocol was used to elicit detail about main and supporting characters, plot, turning points, endings and morals. The procedure was first piloted with members drawn from each subject group and then refined based on the results of the pilot study.

Efforts to ensure internal validity involved the triangulation of data through multiple sources and methods (Tammivaara & Enright, 1986). We included the use of multiple analysts (Foreman, 1948), member checks, peer critiques, and multiple data sources for story interpretation (Guba & Lincoln, 1981). Data sources included the transcribed story narratives, semi-structured interview data, and field observations by the lead author. All data were independently reviewed by the research team which included the authors and three graduate students who are schooled in the study's methodology and theoretical framework. A fellow colleague critiqued research plans and emerging data. Emergent findings were also reviewed by colleagues from five other universities as part of a research colloquium. On-going findings and interpretations were additionally verified by a representative subject and non-subject.

An additional feature of our methodology was the use of imagery to assist subjects in creating stories (Hansen, 1985; Hansen & Kahnweiler, 1993). To facilitate such visualizations, twelve randomly ordered line drawings depicting typical corporate work scenes were presented as part of the interview protocol. Subjects were asked to select and sequence any number of sketches that best supported the visual flow of their story.

Our initial analysis of the data entailed the development of a classification system to code and examine stories for psychological characteristics (Marshall & Rossman, 1989; Spradely, 1979). Second, we triangulated the data by sorting and analyzing the stories' content themes. Lastly, we triangulated the data by testing whether subjects' demographic variables were significantly related to the story elements. The findings from each of these methods are presented separately in the following section.

## Key Findings

### Psychological Characteristics

We first looked for shared psychological characteristics by linking our analysis to dimensions of intra- and interpersonal dynamics as depicted by Sillars (1980). This aspect of story analysis is unique.

**1. Sense of ego:** The two subject groups unquestionably exhibited different tendencies. Executive subjects played their own main characters in half of the stories. Their colleagues held the primary role in another 21% of the stories. Thus, top management clearly dominated as the driving force behind their plots' development. Success and failure were reflected in the stories' turning points and were determined by the subjects' own actions. A strong sense of ego strength was revealed in the large number of happy endings where the subject's or a colleague's constructive actions led to a positive story resolution.

HRD subjects, conversely, exhibited less ego strength by playing the main character in only 20 % of their own stories. HRD stories more commonly suggested a "victim" mentality. Success and failure were reflected in the stories' turning points and were determined by the empowerment of others (i.e., non-HRD personnel) or by disenfranchising forces such as an organizational culture which did not support HRD agendas.

**2. Conflict:** Almost half of the executives' story conflicts were associated with interpersonal relationships. Plot development revolved around gaining the consensus and buy-in needed to "get the job done without harming others." Secondary sources of conflict concerned business challenges and competition. Concerns were voiced that the organizational culture was not team-oriented or committed to change.

HRD stories focused on functional dilemmas. In fact, the largest number of conflicts were associated with either the credibility of the HRD function or with an organizational culture that did not philosophically promote HRD goals.

**3. Impressions of others:** One third of the heroes in the executives' stories were identified as top managers. The remaining heroes came from all organizational strata. Overall, heroic actions were described as being virtuous behavior that all employees should demonstrate. Like main characters, the executives' heroes were energetic; they welcomed new challenges and were flexible and open to change. Heroes were also characterized as courageous and likened to a "white knight" because they were willing to go "out a limb" by accepting the sometimes perilous responsibility for new venture decision-making. Attributional data emphasized behaviors over attitudes and knowledge. It is worthy to note that executives deemed business and political acumen to be more important for all employees to possess, whereas HRD practitioners expressed this perspective only for those who occupy top-level executive positions.

Similar to heroes, almost all subjects in both subject groups identified more than one villain in their story. For executives, 79% of the villains were identified as a person who conveyed "the wrong attitude." Top managers were not named as villains. Rather, villains were subordinates or other employees.

Negative organizational forces were described as a lack of leadership, communication, or structure. Two executive subjects were concerned that their organization's culture was not customer focused. Only two external villains were described as concerns about the market place.

In comparison to the executive stories, a clear finding in the HRD stories was the lack of an organizational-wide "macro hero" who generated positive forces throughout all organizational stratum. Thus, to HRD personnel, anyone could be a hero. A second and equally important finding was the preponderance of non-HRD people, especially the large number of executives, that were named as heroes by HRD storytellers. The heroic actions were not linked to overall business results (for example, reducing operational costs, increasing market share, etc.).

Finally, top executives overwhelmingly emerged as the most popular villain depicted by HRD professionals. These players were seen as task and not relationship-oriented, short-term focused, poor communicators, and, thus, ineffective leaders.

**4. Decision making:** Executives' stories indicated concern for both the process of how decisions were reached as well as their outcomes. HRD subjects, conversely, focused on the decision-making process alone. Conflict resolution for both subject groups was positively resolved through the use of adroit interpersonal skills that permitted mutual information exchange and the development of group synergy.

**5. Aberrant behavior:** Unconventional or deviant behavior was depicted both positively and negatively by both subject groups. The value executives attributed to aberrant behavior was contingent upon the degree that the dynamic nature of organizational agendas was recognized and appreciated. Story morals also supported these virtues by indicating that managers and their employees should possess energetic and innovative problem-solving and people skills, a team orientation, and customer sensitivity.

HRD story line data clustered around the notion that a "good" manager was sensitive to employees' needs and demonstrated a genuine commitment to develop human resources. A concern for the welfare of people in the organization was shared but not equally emphasized by executives.

#### **Recurring Stories**

The analysis of content themes provided an additional perspective from which to examine the data (Polkinghorne, 1988). When viewed across the data, story themes naturally combined with each other to produce distinctive mini-genres of stories.

**Shared Organizational Change Stories:** This genre addressed change--how it happens and how it is handled. These stories were typically concerned with the growing effects of a changing world economy and demographics as they effect the subjects' organizations. Executives frequently identified concerns about empowerment, organizational flexibility, and managerial responsiveness. These issues were touted as the means to accomplish the primary goals of enhanced stakeholder value, profitability, and market share. HRD stories also concerned the cultural aspects of change, but they tended to be somewhat complex, abstract, and philosophical in nature.

**Executive Story Themes:** Personnel Stories were the second largest genre. These stories concerned top management's ability and need to recognize, acquire, groom, and terminate employees. Valued personnel were problem solvers, good communicators, and risk takers. Only three stories described a customer focus story theme and heralded employees who understood the connection between customer service and company success.

**HRD Story Themes:** Conflict Resolution Stories showed a greater concern for traditional business issues such as efficient performance and production schedules compared to the other HRD genres. HRD Process Stories, as an additional genre, concerned short-term or one-shot events that technically affected project work. These storytellers frequently mentioned the need for a team approach, the need for support from top executives and the politics of gaining/having that support. Finally Struggle Stories described HRD's desire to be a meaningful member of the management team and revolved around HRD being excluded, its lack of empowerment, and political complications.

#### **Demographic Variance**

Data were sorted by demographic variables for gender, formal training, years in business and position, position level, exact responsibilities, and type of industry. Statistical analyses using likelihood ratios of association and Cramer's V test of correlation were applied to assess the link between story line components and subjects' background variables. For example, subjects' gender and years in top management were correlated with such story components as hero, plot, and turning points. Over 30 of the various combinations of component and subject variables were subjected to statistical analyses.

All relationships between the story components and the executive subjects' demographic characteristics were not statistically significant ( $p > .05$ ). Likewise, the vast majority of relationships between the story components and the HRD subjects' collectively, suggest that executives and human resource developers represent

different occupational cultures--one in which members' values, norms, and beliefs are driven more by their professional orientation (in this study, general management and HRD theory and practice) than by the specific aspects of one's personal and organizational circumstances. This issue is explored more fully in the following section.

### Conclusion

The major outcomes of our comparative qualitative and quantitative analyses of story components, reoccurring stories, and background variance tend to converge into major themes that permit the analysis and description of executives and human resource developers as separate cultural entities. This section will describe commonalities and differences in the cultural perspectives of each group. Implications for theory development in this area will also be included.

### Discussion of Psychological Themes

**Executives as an Occupational Culture.** Empowerment, trust, and organizational change emerged as three key issues. Executive subjects consistently described group synergy and teamwork as a critical resource. This perspective suggests the need to empower employees to take greater responsibility for decision-making and management. However, the story components did not reveal the specific behaviors needed to facilitate empowerment. Teams did not dominate as main characters or heroes. Thus, they did not carry their stories' action, set ideals, or significantly influence the turning point. These roles were mostly played by the subjects themselves. Based on these results, we surmise that executives think of team players as facilitative and cooperative employees who implement top management's agenda.

Executives viewed change as positive and essential to the continuous improvement of organizational performance. Subjects continually remarked that resource availability, market demand, and economic cycles were not static. Therefore, organizations needed to promote flexibility and innovation in order to remain competitive. Furthermore, subjects valued risk takers who were not afraid to question present goals and strategies. Conversely, subjects expressed great irritation and aversion to employees who resisted change through fear or personal agendas. They also showed great disdain for those employees who exhibited an entitlement mentality through their unwillingness to encounter the exertion and discomfort that accompanies change efforts.

**HRD as an Occupational Culture.** It is notable that HRD storytellers told tales about others in the organization. They did not drive story lines by playing the main character and seldom played secondary roles. While this finding clearly suggests a lack of professional empowerment, it also implies that HRD practitioners characterize themselves as supporting and facilitating the work of others. These bonds appear strongest among those professionals who did not identify themselves as part of the executive echelon.

We found that human resource developers expressed particular concern for people and processes, organizational equity, and their own professional control and security. HRD story components focused on people and work process issues instead of financial or overall business objectives. In fact, people skills prevailed over business acumen as positive attributes for management and non-management.

Plot development also conveyed strong anxiety about the inability to control the means and standards required to perform quality work. Likewise, story morals emphasized the need to establish and maintain professional credibility and viability. An "us versus them" mentality was indicated by the high frequency of top managers identified as villains.

### Toward An Integrated Theory of Occupational and Organizational Culture

Our conclusions appear to support Schein's (1985, 1990) belief that top management highly influences organizational culture. They control subtly by creating organizational templates that promote assertion, risk-taking, creativity, flexibility,

financial acumen and team play to operationalize their organizational visions. Yet, they are not the only source of work beliefs and values. The nature of one's work plays a powerful role in shaping one's organizational perspectives and behavior. In particular, occupations that require in depth training and knowledge of highly technical skills command an emotional investment that outweighs an alliance to any one organization.

Moreover, it is common for people to psychologically feel more comfortable and trusting of others who are like themselves. The commonalities of one's craft naturally causes strong ties. It is not unusual for occupational cultures to look for followers and subordinates who exhibit similar values. Evidence of this dynamic emerged in both of our subject groups. Thus, executives and HRD practitioners look to create schemata in others that are consistent with their own cognitive models and expectations for organizational behavior.

The results of this study also suggest that individuals retreat to the "culturally familiar" when threatened or insecure. Self-serving biases multiply easily. Powerful cultures such as executives build upon already strong egos by over attributing their ability to "make things happen." Our interpretation supports similar managerial tendencies found by Ross (1977). This can lead to tighter reigns on decision-making and visions become myopic or grandiose. Sims and Lorenzi (1992) describe the vast majority of American managers as top/down visionary heroes. Their organizations are overly dependent on the leader and tend to flounder when the leader departs.

Conversely, occupational cultures which prescribe facilitative rather than directive roles may bolster low egos through the passive-aggressive playing of martyrs or victims. Our HRD data indicated an "us versus them" mentality from the large number of high ranking executives who were named as villains. Subjects also expressed an angry and helpless dependence on others for organizational support and resources. This theme is similar to concerns for personal control, equality, and security found in general stories of organizational life (Martin, Feldman, Hatch, & Sitkin, 1983). Thus, as strong, ego-centered cultures become stronger, those with lower ego strength become weaker. Moreover, this tendency sustains the cultural power of top management. It also supports Schein's (1985, 1990) belief that many top decision-makers lead by default because employees are basically passive.

Weaker occupational cultures are often characterized by a kind of functional myopia that are at odds with the broader organizational perspective held by top management. The need to establish some level of personal control in their organizational life often causes less powerful cultures to turn inward and focus on the more familiar ethical and technical aspects of their work. Executives in our study considered HRD personnel as unpromotable "techies" who were driven by personal or professional ambition rather the reality of business needs. Executives who failed to balance employee welfare goals with business outcomes were considered villains by human resource developers.

Finally, our analysis suggests that the notion of a unified organizational culture, driven by an executive oligarchy, is a weak facade that feeds on psychological uncertainty and insecurity. Such cultures are based on the disenfranchisement of other organizational perspectives whose cultural alliances are not necessarily tied to a given set of organizational practices. Our theoretical development supports an integrated cultural confederation that acknowledges differences and builds upon similarities to erect bridges between the myriad of cultural frames that comprise today's complex organizational landscape.

#### **Limitations**

Qualitative methods such as storytelling yield a rich data base for the study of cultural phenomena. However, this study is exploratory and non-positivistic. Inferences are not generalizable. In turn, this approach permits researchers a phenomenal opportunity to first uncover theory, as earlier presented, that merits more extensive study.

In addition, it is important to note that the subjects' stories may have been influenced by the lead interviewer's professional identify. As a professor of Human

Resource Development, some subjects may have wished to convey a positive image by emphasizing the human element in their stories.

#### **Further Research**

Contrasting the findings of this study with other occupations seems warranted. For example, do similar cultural differences exist between executives and other functional groups such as information systems, legal affairs, and public relations? Do similar phenomena exist in medium-sized companies and industries not represented in this study, such as health care? How do business units within the same corporation operating in different countries differ on these and other dimensions? Does the life cycle stage of an organization affect the stories occupational groups tell? We also hope to see additional studies which test this study's theoretical frame. More research is needed which examines the influence of occupational bonds and the tendency for such groups to develop self-serving schemata. Finally, further study is needed that explores how a group's felt ego affects interaction, work strategies, and their perceptions of others.

#### **Summary**

Our work is exploratory and still at the initial stages. It constitutes a unique analysis of management and organizational behavior. We hope that further research, coupled with our findings here, can help to develop of a theory of occupational culture as well as an expanded understanding of organizational culture. Moreover, we believe that additional inquiry into work place experiences through stories can yield much insight into the often unconscious cultural expectations that so profoundly influence organizational life.

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 Due to space limitations, a reference list has been omitted. Please contact one of the authors and one will be provided upon request.  
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#### **ACKNOWLEDGMENT**

We are grateful to Ava Wilensky for her analysis of the reoccurring stories. We would also like to thank Paul Neiminen for his help in coding and managing the data.

## The Development of a Cognitive Learning Style Instrument and the Investigation of Foundational Common Cognitive Constructs.

Chris Hardy

**Personal Statement and background.** In the last ten years while serving as a facilitator, professor, course director, and program director to adult student populations, I have used and administered many well known personality and learning style instruments to hundreds of adults in many diverse settings and learning activities. Although I could see the utility of learning style assessment instruments, I found that many of the most widely used are problematic in regard to practical and reliable application in the class room. During my graduate work in adult education, I had the opportunity to continue my interest and research into learning style theory and adult assessment instruments. I found that under critical scrutiny many popular instruments have reliability, validity, and test construction discrepancies. In my research, many instruments were either based on adequate theory but with relatively poor psychometric properties, or controversial theory with adequate instruments design. Additionally, I found that there is considerable controversy in many of the aspects of learning style and assessment instrumentation.

I also discovered congruent trends in adult education, learning theory, cognitive and brain physiology which have brought into better focus the theoretical bases to understand and construct an assessment instrument anchored in the latent structures which can be identified in many of the cognitive instruments. By adapting the common constructs of several instruments with an adapted semantic differential measurement technique, concurrently comparing criterion constructs measured with repeated adult populations, applying preference and semantic theory to learning style, and overlaying the resulting cognitive learning theory over accepted learning processes, I saw the opportunity to contribute to the education community by designing and providing a learning style instrument with applicable learning templates as a learning enabling and organizational tool.

A cognitive preference pattern indicator would allow educators to perform important collaborative orientation functions during each learning activity without the need for expensive instrument certification workshops and material scoring costs. The intent is to publish a valid, reliable low cost pamphlet which will include the instrument with learning templates based on current cognitive theory combined with neuroscience research. My long term research interest will continue in preference theory and learning theory investigations and my post doctoral interests will be in diversity and learning style differences with diverse populations. Embedded in my current research are demographic interests to account for factors of diversity with regard to learning styles and orientations.

**Learning style.** Educators and trainers while working with adults over the years have tried to use many different assessment instruments to gain an understanding of their students' learning styles with the intent of responding to their needs and adapting the delivery of the subject matter to provide a more compatible format for learning. As important as learning style strategies are in regard to content and style orientation, a contextual approach to learning and memory has recently emerged as one of the most potentially significant contributions to adult education and consciousness. Learning style understanding and self-critical reflection are possible using learning style instruments to gain the objective insight necessary to confirm or transform affective structures of meaning (transformative learning theory). During adult learning situations, the setting aside of personal preoccupations or orientations and unique, experience-based thinking and feeling distortions, in order to gain proper contextual meanings during learning transactions, not only enhances transformative learning, but also allows for maximum adult development and growth and a change in personal perspective.

**Need.** Although accepting the relevance and importance of learning styles in regard to adults, the practical limitations and constraints with regard to instruments' administration, schedule, and costs limit their more widespread use and application. Additional issues concerning test construction, validity, currency, and certification requirements further inhibit the utilization of learning style instruments in many routine and practical educational/training settings and other learning opportunities.

This immediate educational and training need prompted the development of a practical and valid instrument which has in turn grown with and has become the focus of this study. Additionally, during the study many of the more widely used learning style instruments have been found to share foundational constructs and what are now believed to be latent common constructs and structures. Previously and for various reasons, instrument developers myopically used these similarities to only provide support for their individual instruments rather than providing evidences for possible foundational structures consistent with the recent cognitive advances from many diverse fields.

**Purpose.** The purpose of this study is to investigate the underlying common factors of learning style instruments associated with theoretical cognitive constructs and to design, construct, and validate an innovative, practical, valid, and useful cognitive preference pattern instrument anchored on these structures and based on current research from multi-disciplinary fields. In spite of the major changes and recent congruent advances concerning brain function, cognitive learning theory, educational research, adult learning theory and practice, and non-intrusive brain function research, some shared and residually valid latent factors within various cognitive learning style instruments still remain. Inclusive in the study is the identification of these specific learning constructs which should provide consistent evidences of validity to cognitive learning and preference theory.

Based on these factors, the resulting assessment instrument's primary importance and significance is its relative accessibility and general utility to educators and trainers aiding in the identification and organization of individual and collective learning orientations and styles.

**Methodology.** The methodology includes criterion/construct validity analyses and internal factor analyses. Preliminary analyses have been significant with relatively high factor correlations (between selected instruments) and expected factor loadings (Orthogonal-varimax rotated) of variables to constructs. Additional data samples will include: one group of 400 professionals testing for internal reliability and construct validity using multiple factor analyses and five smaller samples each being administered selected multiple learning style instruments for correlational analyses of common constructs. Multivariate statistical techniques will be used to explore shared variances of common constructs. After establishing some evidence in the literature concerning latent structures and common cognitive constructs of learning style instruments, even if based on different foundational theories of learning, this study will statistically confirm the presence of common cognitive constructs by sampling several separate adult populations administering and comparing the results of several of the more widely known and current instruments with several different adult sample populations. Correlation analysis, factor analysis, and multivariate techniques will be used to help identify and interpret the common (shared) cognitive constructs and the presence of latent structures.

Moreover, this study will compare a new preference pattern instrument with the intent to validate its properties and constructs against established criterion and the identified shared constructs which the instrument was hypothesized and designed to measure using a modified semantic differential approach. Prior to this a separate sample will be factor analyzed for internal and construct validity purposes. The cognitive preference pattern instrument will be included in multitrait-multimethod administrations of the selected instruments to confirm criterion validity and provide additional evidence of construct validity with other learning style instruments.

**Why another instrument?** Educators and Human Resource professionals need a reliable, accessible, and valid adult assessment instrument which is constructed to measure cognitive preference pattern and learning. Although there are many adult assessment instruments which are used in various applications to attempt to measure learning styles, few of them have withstood psychometric analysis and critique. Many are based on dated theory and inaccurate assumptions concerning how people learn and how the mind or cognitive structures support the integration of knowledge.

Moreover, much of what we know about the mind and how the mind learns has been learned in the last ten years. Even though from many different disciplines, education, psychology, neuroscience, and brain physiology tremendous strides have made, there still remains a common thread and a latent structure which links many of the existing instrument constructs closer to what we know of reality. When an assessment

instrument's construction, administration, and (especially) interpretation departs from these common foundational frame works, significant construct validity problems are encountered, for we are no longer certain exactly what is being measured regardless of the reliability of the instrument.

In the last few years (due to interdisciplinary congruencies, advances in psychometric research and non intrusive brain technologies), many existing instruments have had to change not only their interpretations but also their theoretical bases. From reviewing the critiques and the literature in general, this lack of construct validity seems to plague most of the "learning style instruments." As a matter of fact, many of them, though once based on valid constructs, were constructed ad hoc without appropriate test construction guidelines or basic psychometric properties.

Although in the past learning style and teaching style strategies were required, attempts to develop and use learning style instruments have been problematic. For the average educator or trainer to routinely use, the instruments reported to have been constructed properly are relatively expensive, inaccessible, and complex. Workshop and certification requirements alone often exceed hundreds of dollars, and the instrument materials, scoring, and support are also relatively cost prohibitive. What is needed is a easy to administer, reliable, valid, understandable, and low cost learning style instrument for the general use of educators and trainers in every learning situation. Ease of use can be achieved with a clear and understandable instrument, scoring procedure, and instruction template. A new instrument should be psychometrically sound and should be correlated with valid constructs representing common factors which modern analysis and study can reveal. In many cases, it has been my experience that additional interpretations beyond practical applications are usually not desired or needed in routine use within the context and scope of the lesson and its delivery.

**The instrument, the Cognitive Preference Pattern Indicator (CPPI).**

Measuring one's preferences as they describe cognitive mental functions, the CPPI is an adult assessment instrument which incorporates a modified semantic differential approach to measure the preferred aggregate meanings of descriptors of foundational constructs. Though still in development and validation, initial results have been very promising and have demonstrated high correlations with the common constructs of other related instruments which were selected for their consistently construct validity evidences. To date, the Cognitive Preference Pattern Indicator has provided initial correlational data of  $>.80$  and factor loadings of  $.75-.80$  on expected dimensions. Additionally, early administrations have driven several revisions and improvements. The current version is ready for generalizations to large adult populations and final analyses. Data collection will be completed in the spring of 1994. Full data analyses using advanced statistical software packages, STATVIEW for factor analysis, DATA DESK for exploratory data analysis, and SYSTAT (MAC versions), will be complete in the Summer 1994.

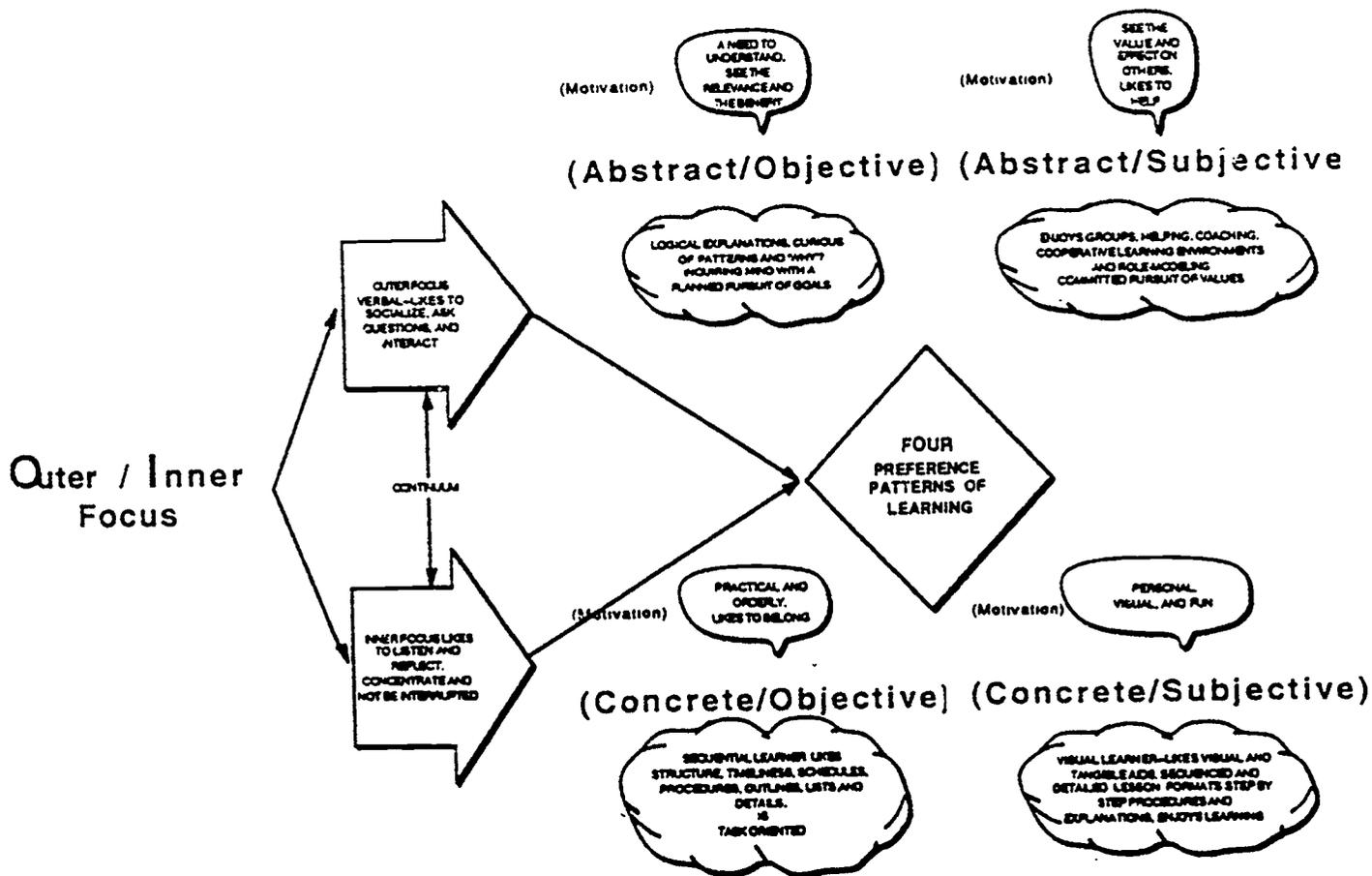
**Summary.** The purpose of the CPPI is to provide a valid and reliable yet simple to administer instrument with convenient application templates which operationalize utilities such as learning styles and other complex activities. The CPPI is designed to improve on previous instrument methodologies and follow an acceptable psychometric construction and design principles. With the use of corresponding templates, the CPPI is designed to be available to educators and trainers for their routine use. Though its theoretical bases, cognitive preference patterns and preference theory, differ in perspective and purpose with other instruments, its intent is to easily and accurately capture commonly shared constructs relevant to cognitive learning styles.

**Research expectations.** Conclusions are anticipated to confirm common constructs and to provide substantial evidence of criterion validity on the new instrument. It is expected that the residual cognitive learning constructs are Jungian based although the descriptive labels and interpretations in regard to learning have be changed to reflect the new perspectives offered by the congruent advancements from diverse fields of research and technology.

The CPPI is intended to be available in a inexpensive pamphlet format with camera ready masters for educators, trainers, and teachers. Consideration is already being given to NCR and Personal computer scoring. Additional application templates will also be available (transformative learning, career counseling, team formation, leadership,

and exercise). The following pages display the CPPI, CPPI scoring, and an abbreviated learning template.

FOUR COGNITIVE PREFERENCE PATTERNS OF LEARNING



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"Circle" the appropriate block between each word pair based on your preference.

Consider each pair carefully. THINK OF THE MEANING (not the sound).

Example:

FAR 

a	b	c	d	e	f
---	---	---	---	---	---

 CLOSE  
 (The closer to the word, the stronger your preference and vice versa)

A) Your Preference for words or meanings which best describe your "Focus of Attention or Orientation" in most situations:

ACTION	a	b	c	d	e	f	REFLECTION
OUTGOING	g	h	i	j	k	l	RESERVED
CALM	m	n	o	p	q	r	ACTIVE
HASTY	s	t	u	v	w	x	HESITANT
ALONE	y	z	aa	ab	ac	ad	CROWD
VERBAL	ae	af	ag	ah	ai	aj	NONVERBAL
DOING	ak	al	am	an	ao	ap	REHEARSING
LISTENING	aq	ar	as	at	au	av	TALKING
OUTSIDE	aw	ax	ay	az	ba	bb	INSIDE
ACTING	bc	bd	be	bf	bg	bh	WATCHING

B) Your Preference for words or meanings which best describe how you like to "Perceive Things" or gather information:

FACTS	a	b	c	d	e	f	THEORIES
ABSTRACT	g	h	i	j	k	l	CONCRETE
REAL	m	n	o	p	q	r	IMAGINATION
DETAIL	s	t	u	v	w	x	GLOBAL
CONCEPTUAL	y	z	aa	ab	ac	ad	FACTUAL
LITERAL	ae	af	ag	ah	ai	aj	FIGURATIVE
SPECIFICS	ak	al	am	an	ao	ap	POSSIBILITIES
ESTIMATE	aq	ar	as	at	au	av	PRECISE
PRESENT	aw	ax	ay	az	ba	bb	FUTURE
HORIZON	bc	bd	be	bf	bg	bh	NEARBY

C) Your Preference for words or meanings which best describe how you like to "Make Decisions:"

LOGIC	a	b	c	d	e	f	VALUES
RATIONAL	g	h	i	j	k	l	COMPASSION
SENTIMENT	m	n	o	p	q	r	PRAGMATIC
OBJECTIVE	s	t	u	v	w	x	SUBJECTIVE
PERSONAL	y	z	aa	ab	ac	ad	IMPERSONAL
PARTIAL	ae	af	ag	ah	ai	aj	IMPARTIAL
HELPFUL	ak	al	am	an	ao	ap	SENSIBLE
PRACTICAL	aq	ar	as	at	au	av	THOUGHTFUL
REASONS	aw	ax	ay	az	ba	bb	FEELINGS
CONSIDERATE	bc	bd	be	bf	bg	bh	ANALYTIC

# Cognitive Preference Pattern Scoring

- 1) To score: First... On the previous page look at the "small letters" in the blocks you 'circled'.  
 Next... Find the corresponding "small letters" in the three columns below.  
 Then... Mark the values next to those letters below.

Example: If you circled the block "a" in the first section on the previous page (CPII),  
 You would mark or circle the value next to the "a" (below), in this example, the "6."

a	6	ne	6
---	---	----	---

- 2) After marking (circling) all your associated values, total them as instructed below:

A) "Focus of Attention"			
Block#	Value	Block#	Value
a	6	ne	6
b	6	nf	6
c	4	ng	4
d	2	nh	2
e	2	ni	2
f	1	nj	1
g	6	nk	6
h	6	nl	6
i	4	nm	4
j	2	nn	2
k	2	no	2
l	1	np	1
m	1	nq	1
n	2	nr	2
o	2	ns	2
p	4	nt	4
q	6	nu	6
r	6	nv	6
s	6	nw	6
t	6	nx	6
u	4	ny	4
v	2	nz	2
w	2	ba	2
x	1	bb	1
y	1	bc	1
z	2	bd	2
aa	2	be	2
ab	4	bf	4
ac	6	bg	6
ad	6	bh	6

Total the marked values above to obtain the "Outer" score.

**Outer =** \_\_\_\_\_

Subtract "Outer" total from 70.  
 (70 total = "Inner" score)

**Inner =** \_\_\_\_\_

B) "Perceive Things"			
Block#	Value	Block#	Value
a	6	ne	6
b	6	nf	6
c	4	ng	4
d	2	nh	2
e	2	ni	2
f	1	nj	1
g	1	nk	1
h	2	nl	2
i	2	nm	2
j	4	nn	4
k	4	no	4
l	6	np	6
m	6	nq	6
n	6	nr	6
o	4	ns	4
p	2	nt	2
q	2	nu	2
r	1	nv	1
s	6	nw	6
t	6	nx	6
u	4	ny	4
v	2	nz	2
w	2	ba	2
x	1	bb	1
y	1	bc	1
z	2	bd	2
aa	2	be	2
ab	4	bf	4
ac	5	bg	5
ad	6	bh	6

Total the marked values above to obtain the "Concrete" score.

**Concrete =** \_\_\_\_\_

Subtract "Concrete" total from 70.  
 (70 total = "Abstract" score)

**Abstract =** \_\_\_\_\_

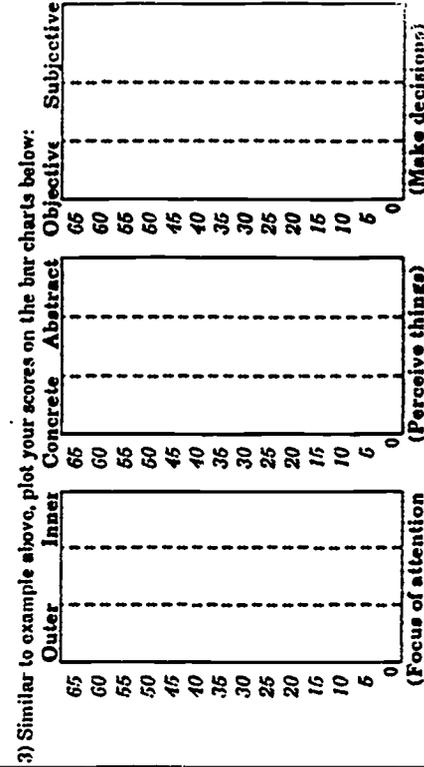
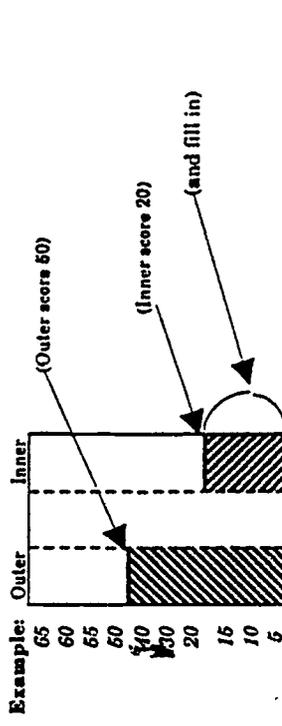
C) "Make Decisions"			
Block#	Value	Block#	Value
a	6	ne	1
b	6	nf	2
c	4	ng	2
d	2	nh	4
e	2	ni	4
f	1	nj	6
g	6	nk	6
h	6	nl	1
i	2	nm	2
j	2	nn	2
k	2	no	4
l	1	np	4
m	1	nq	6
n	2	nr	6
o	2	ns	4
p	4	nt	2
q	6	nu	2
r	6	nv	1
s	6	nw	6
t	6	nx	6
u	4	ny	4
v	2	nz	2
w	2	ba	2
x	1	bb	1
y	1	bc	1
z	2	bd	2
aa	2	be	2
ab	4	bf	4
ac	6	bg	6
ad	6	bh	6

Total the marked values above to obtain the "Objective" score.

**Objective =** \_\_\_\_\_

Subtract "Objective" total from 70.  
 (70 total = "Subjective" score)

**Subjective =** \_\_\_\_\_



As you see in the charts above, you prefer to use all of your cognitive preferences (even if unequally). Equal or "ties" are balanced preferences. (You probably prefer both)

4) To find your Cognitive Preference Pattern:  
 --Compare each pair plotted above.  
 --From each pair, write the word of the larger in the spaces below.

Examples: Inner / Abstract--Objective  
 or Outer / Concrete--Subjective & Objective (Tie or close)

(Focus of attention) (Perceive things) (Make decisions)

\*(The Largest of the "Perceive things" or "Make decisions" preferences is your most preferred or dominant function)

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## THE RELATIONSHIP BETWEEN TOTAL QUALITY MANAGEMENT AND JOB SATISFACTION IN THE MAQUILADORA INDUSTRY

OLGA HERNÁNDEZ LIMÓN

### INTRODUCTION

The purpose of this research was to determine the relationships between Total Quality Management (TQM) and job satisfaction in the maquiladora industry. Based upon previous findings in others industries, it was hypothesized that overall satisfaction scores would be higher for employees in a company using TQM processes and lower for employees from companies not using TQM.

### OVERVIEW

Although its creation is generally credited to W. Edwards Deming, the concept of Total Quality Management (TQM) has also been studied by Juran, Crosby and Taguchi. Blanton (1991) refers to TQM as one of the most observed phenomenon in business manufacturing and services, as well as an increasing force in government and education. Deming's ideas were designed to help improve the quality and production that the organization offers its customers.

Blanton (1991) found that employees are committed to and work best in an organizational environment which provides for creativity, involvement, self-motivation, adequate resources and training, open communication, clear, realistic goals and tasks, feedback on their performance, recognition and praise, honesty, integrity, and high ethical standards. The factors mentioned above contribute to one's level of job satisfaction, and this type of work environment is often found in companies that have effectively implemented Total Quality Management (Baker, 1990; Blanton, 1991, and Mangan, 1992).

### STATEMENT OF THE PROBLEM

Despite the rapid growth in the number of maquiladoras in México over the last few years, these industries must now implement improved methods of production if they hope to continue to compete effectively in the expanded market place created by the globalization of the economy and the anticipated passage of the North American Free Trade Agreement (Fuller, 1992). One of the experiences of companies that have implemented TQM in the U.S. and Japan has been the increased satisfaction level of their employees (Hull & Neptone, 1991). Despite these successful findings, most of the maquiladoras have, up to this time, been reluctant to implement TQM.

### RESEARCH QUESTION

What is the relationship in the maquiladora industry of employee job satisfaction between employees in a company using Total Quality Management (TQM) and employees in a company not using Total Quality Management?

### LIMITATIONS OF THE STUDY

Because of the use of the case study method, findings are not necessarily generalizable to other maquiladoras in different industries/regions. Also, research shows that many factors affect job satisfaction, so the affects suggested by the presence of TQM may be influenced by other variables as well.

### SIGNIFICANCE OF THE STUDY

It is not practical for the Mexican maquiladora industry to continue its previous rapid levels of growth; new industrial powers seeking global markets will force maquiladoras to focus more on competition. Managers will increasingly be challenged to find new ways to increase quality in their services and products. With the passage of the

North American Free Trade Agreement, both the U.S. and Mexico will have an economic interest in the success of border maquila industries (Kelly, et al., 1991), as Mexico is expected to account for almost 15% of the Texas economy by the year 2000 (Echeverri-Carrol, 1993).

## REVIEW OF THE LITERATURE

For purposes of this study the research and literature in the areas of Total Quality Management and job satisfaction were reviewed. The review of Total Quality Management included the historical development of TQM, theoretical underpinnings, the major components of TQM, and obstacles to its effective implementation. Job satisfaction, as a factor, has an important effect on the implementation of TQM, and the literature reviewed in this area considered the major theories of job satisfaction and the individual, job, and socio-cultural characteristics associated with job satisfaction.

Additionally, the literature on the maquiladora industry was analyzed. The maquiladora industry has been of great economic value to Mexico and, given the passage of the North American Free Trade Agreement (NAFTA), its position takes on even greater importance as maquiladoras are allowed to start selling up to 55% of their production in the Mexican market during the first year of the agreement (Echeverri-Carrol, 1993).

## METHODOLOGY

### Case Study.

A quantitative-experimental approach was used with the case study method in gathering data to determine the relationship of TQM program with measurable changes in participants' job satisfaction. Such data will help suggested the value and effectiveness of the program in producing desired changes (Mark & Cook, 1984).

### Selection of participants

The three companies selected for participation in this study were all from the Mexican state of Tamaulipas, which borders the state of Texas from Laredo to Brownsville. There were two categories of "participants" in this study: (1) the organizations that were selected; and (2) the employees within the organizations that were randomly selected as participants. Of the three organizations (maquiladoras) that were selected for participation in this study one had implemented TQM and the others had not implemented TQM. The TQM maquiladoras were selected based on evaluations of high-use of TQM using Mink's Continuous Improvement Matrix (Mink, 1983), which measures a company's use of TQM over seven different dimensions. Additionally, all 3 companies were selected based upon similarities in size and age and upon their willingness to participate.

### Instrumentation and validity.

Data for this study were collected using two separate instruments. One instrument was designed to collect data on the specific demographic information about the respondents and the organization. The second instrument that was used to collect data regarding the research question was the Job Descriptive Index (JDI) developed by Smith, Kendall, and Hulin in 1969, and validated through numerous subsequent studies. The JDI is a simple survey that has been shown to be a useful tool for describing five different dimensions of work: the work itself, supervision, pay, the opportunity for promotion, and co-workers on the job.

### Reliability

The reliability of this instrument was determined by a pilot test of the translated instrument (Spanish version) with a group similar to the proposed study population. The instrument was tested on a group of thirty-six Mexican workers who had been working in

the maquiladora industry in Mexico. The pilot group could not speak English; therefore, the Spanish version of the questionnaire was administered to the group.

#### Data Collection

The questionnaire was administered by the researcher in June, 1993. The employees of the maquiladoras were informed of the purpose of the study and were assured that the only person who would see the completed questionnaire would be the researcher. The questionnaire was administered to employees in groups of ten so that production levels could be maintained without interruption. Structured, open-ended interviews were also conducted with key personnel from each maquiladora to gain further insight into the cultural aspects of the Mexican worker in the maquiladoras.

#### Data Analysis

Descriptive statistics were calculated to determine the means and standard deviations of the responses of individuals. A one-way analysis of variance (ANOVA and MANOVA) were calculated to determine the variance of group means to measure observed differences between groups (Ary, Jacobs & Razavieh, 1985). The information gathered was reported as group data so that no employee could be identified by name. A missing case was indicated if a question was not completed by the participant.

#### RESULTS

Of the total sample of employees ( $n=130$ ), 96 (73.38%) were females and 34 (26.2%) were males. Companies 1 and 2 showed higher percentages of female employees (87.5% and 88.3% respectively) than company 3 (26.7%).

Turning to the Age variable, a Chi-square analysis (39.51, DF 8,  $p < .001$ ) revealed differences in the scores on the age category across the companies. Most of the employees in Company 1 were in the 16-to-18 year old category (35.9%). Thirty-seven percent of the sample was between 19 to 21 years old. Company 2 had its largest percent in the fourth category (25-to-27 years old). Company 3 had the largest proportion (60%) of employees between 16 to 18 years of age.

Most of the employees had completed middle school education level (47.7%), 35.4 percent of the employees had finished elementary school, and 16.9 percent of the employees had not completed high school or earned a bachelor degree at the college/university level.

A majority of the sample surveyed (73.1%) was unmarried, while 26.9% were married or single with family. The results showed that the three maquiladoras did not differ significantly in the areas of marital status. The maquiladora using TQM was Company 1, as can be observed in Table 1; Companies 2 and 3 were the maquiladoras which did not employ TQM practices. Company 1 did not report any employees in the lowest two levels of the scale of job satisfaction, whereas Companies 2 and 3 reported moderate percentages.

Table 1 Job Satisfaction level by company

	Low					High	Total
	1	2	3	4	5	6	
	%	%	%	%	%	%	%
Company 1			17.5	32.5	42.5	7.5	100
Company 2	11.7	21.7	35.0	23.3	8.3		100
Company 3	6.7	30.0	43.3	13.3	6.7		100

### COMPARISON OF JOB SATISFACTION LEVEL BETWEEN GROUP 1 and GROUP 2 .

For this analysis it was necessary to collapse Companies 2 and 3 (without TQM) into a larger Group 2 in order to determine any differences between Group 1 (Company 1 with TQM) and Group 2 (companies without TQM). This was justified by the finding that no statistically significant differences were found between Companies 2 and 3 on the dependent variable.

The MANOVA yielded a statistically significant effect of the group type (Wilks Lambda = .56076,  $F(5,124) = 19.43$ ,  $p < .001$ ) such that the group with TQM had a higher overall level of satisfaction. This finding agrees with previous research on the relationship between TQM and employee satisfaction. (Blanton, 1991; Mangan, 1992). As Table 2 illustrates, the level of satisfaction of employees in Group 1 tended to concentrate in the highest level of satisfaction while employees in Group 2 tended to concentrate in the lowest levels.

Table 2 Differences in Job satisfaction level between Groups.

	Low					High	Total
	1	2	3	4	5	6	
Job Sat	%	%	%	%	%	%	%
Group 1			17.5	32.5	42.5	7.5	100
Group 2	9.3	25.8	39.1	18.3	7.5		100

Given these strong effects indicating a difference between the groups based on the dependent variables, the next step was to determine which of the dependent variables contributed to this effect. Univariate F-Tests were conducted on each of the dependent variables separately to address this question. The univariate test for supervision revealed a statistically significant difference between Group levels ( $F(5, 128) = 28.53$ ,  $p < .001$ ), such that Group 1 had a higher level of supervisor satisfaction.

### SUMMARY OF THE MAJOR FINDINGS

The findings indicate that employees of the maquiladora using TQM (Group 1) were more satisfied in their jobs than employees of the maquiladoras that were not using TQM (Group 2). The findings suggest that the younger the employee, the more likely he/she was to have a high level of satisfaction. Women employees in this study reported higher levels of satisfaction with their jobs than did men. This study found that employees from the company using TQM tended to maintain their levels of satisfaction; over time, however, these levels of satisfaction tended to decline. Significant relationships were found between four of the five variables (supervision, co-workers, work, promotion, and pay) that measure job satisfaction and the two types of companies. Group 1 had higher scores on the amount of supervisor support, promotion opportunities, attitudes towards co-workers, and work than did Group 2. Nevertheless, both groups had almost the same results on the Pay variable; employees of both groups felt they had low salaries.

### Recommendations.

Based on the results of this study, it is recommended that criterion variables such as performance, production and job commitment be investigated in conjunction with job satisfaction to determine how these factors are affected by TQM.

### SUMMARY AND CONCLUSIONS

In summary, this study supports the hypothesis that the use of Total Quality Management (TQM) may have a positive relationship with the level of employee job satisfaction. One of the advantages enjoyed by the Mexican maquiladora industry is its

workers. They are young, intelligent and hardworking. These attributes -- combined with the relationship suggested by this study between job satisfaction and TQM -- may encourage the further implementation of continuous improvement systems in the maquiladora industries in Mexico.

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## **NEW EMPLOYEE DEVELOPMENT TACTICS: AVAILABILITY, PERCEIVED HELPFULNESS AND RELATIONSHIP TO JOB ATTITUDES**

**Elwood F. Holton III**

The first year on the job is a critical period for new employees and their organizations. Yet, research and field reports indicate that few college graduates are prepared for the realities of work and even fewer have the skills to make a successful transition (Nicholson & Arnold, 1991). At best, graduates' first year on the job is an enormous transition with many surprises. At worst, it can be a horribly disappointing, stressful and disenchanting time.

For the new employee, the first year and even the first few months set the tone for the early years of a career. A poor start can have long lasting negative consequences on a variety of important organizational outcomes. Turnover studies have reported unusually high turnover for new employees, usually around 50% (Leibowitz, Schlossberg & Shore, 1991; Gardner & Lambert, 1993). Job satisfaction studies have shown lower satisfaction among new employees (Morrow & McElroy, 1987) while studies of organizational commitment have shown a link between organizational commitment and work experiences during the first year on the job (Meyer & Allen, 1988). The stakes can be high if a graduate's transition to work is not successful.

Organizational socialization research indicates that support and information provided to new employees by their employers is positively related to satisfaction, performance, commitment, and negatively related to turnover, intent to leave and stress (Fisher, 1985; Miller & Jablin, 1991). These should be particularly important concerns for human resource development professionals because in almost every organization, it is they that have the major responsibility for transforming newcomers into productive members of the organization by developing and implementing new employee orientation, training and socialization programs. While not totally ignored by the HRD literature (Leibowitz, Schlossberg & Shore, 1991), organizational entry has not received enough attention by the HRD field.

Only four previous studies could be located that examined some aspect of new employee development tactics. Two of them (Allen & Meyer, 1990; Jones, 1986) were designed to test a portion of Van Maanen's (1978) typology of tactics and have limitations. Jones (1986) found that more "institutionalized" tactics resulted in higher commitment and job satisfaction, lower intent to quit and a more custodial role orientation. Allen & Meyer (1990) tested and confirmed the results for commitment and role orientation. These studies suggest there is a relationship with attitudinal outcomes but are imprecise as to the specific tactics.

The other two studies (Louis, Posner & Powell, 1983; Nelson & Quick, 1991) are the only ones that examined in any detail the specific tactics employed by organizations. Both provide descriptive data on the availability and helpfulness of ten development tactics and examine the relationships between these tactics and development outcomes. One weakness of both studies is that availability is a dichotomous "yes-no" variable. No effort was made to assess the degree of availability. In addition, from a descriptive perspective, the former study is now ten years old and needs updating. The later study, while more recent, uses a small sample ( $n = 91$ ) which the authors acknowledge limits its generalizability.

Both studies found significant relationships between the tactics and development outcomes. Louis, Posner and Powell (1983) found that the availability of a set of ten tactics explained 10% of the variance in job satisfaction, 20% of commitment and intent to quit. Only modest correlations were found for

helpfulness (measured on a five point scale). Nelson & Quick (1991) used *t*-tests to examine differences between available/not available groups on job satisfaction, intention to leave, psychological distress and performance. Only four differences were found in two outcome variables, the most interesting of which was lower job satisfaction where mentors and senior coworkers were more available. Five of the helpfulness measures produced modest correlations with the four outcomes.

Thus, there is a need for an up-to-date descriptive study of new employee development tactics commonly used by employers and further definition of their impact on outcomes. This study meets that need. It addresses the shortcomings of previous studies by providing more up to date descriptive information, using a broad sample, assessing more outcomes than previous research, expanding the number of tactics examined and using more precise measures of availability. Specifically, these two research questions are addressed:

1. How do new college graduates perceive the availability and helpfulness of training and development tactics used by the employers who hired them?
2. What are the relationships between these perceptions and attitudes toward the organization and the transition itself?

## METHODOLOGY

### Population and sample

Data were obtained from a large survey instrument sent to 2,214 1990 spring bachelor's graduates from a major land-grant university twelve months after graduation. This study reports on only one portion of the data. Two mailings were completed, yielding 846 responses for a response rate of 38.2%. From this group, those graduates who were not employed in a job appropriate for starting their careers (i.e. temporary employment, graduate school, clerical work, etc.) and those not employed in a business, professional services or other for-profit organization were eliminated. The final sample was 378.

### Instrumentation

Twenty commonly used new employee development tactics were identified from the literature and operationalized in a scale. Examples included formal training, informal training and mentoring. Respondents were asked to consider two dimensions of each: their availability and helpfulness (Louis, Posner & Powell, 1983). A five point Likert scale was used for each dimension. If a tactic was reported "never available", respondents were instructed not to respond to the helpfulness scale.

The seven job attitudes included in the instrument were identified as being important outcomes of the socialization process and are commonly used in socialization research (Fisher, 1982). All items except post-decision dissonance were initially chosen because of their high reliabilities reported in the literature. Reliabilities for this study are reported below and in Table 2. All items used a five point Likert scale ranging from "strongly disagree to "strongly agree." The attitudes measured were:

Job satisfaction ( $r = .85$ ) Because of the scope and exploratory nature of this study, it was decided to limit the investigation of job satisfaction to overall satisfaction which has consistently shown a strong negative correlation with turnover (Mobley, 1982). The 3-item short form of Hackman and Oldham's (1975) five-item JDS general satisfaction scale was used here.

**Commitment** ( $\alpha = .91$ ) One of the most frequently used and tested measure of commitment is the 15 item Organizational Commitment Questionnaire (OCQ) with reported internal reliabilities ranging from .82 to .93 (Mowday, Steers & Porter, 1979). The nine item short form used here consists of only the positively worded items and has been shown to have good reliability ( $\alpha = .84-.90$ ) and to be an acceptable substitute where questionnaire length is a consideration (Mowday, Steers & Porter, 1979).

**Internal Work Motivation** ( $\alpha = .78$ ) A three item scale developed by Hackman and Lawler (1971) was used to assess the extent to which the job taps the employee's intrinsic motivation.

**Job involvement** ( $\alpha = .78$ ) Following Ashford and Cummings (1985), a four item version ( $\alpha = .69$ ) of Lodahl and Kejner's (1965) 20 item job involvement scale was used.

**Intent to quit** ( $\alpha = .91$ ) A person's intention to quit or stay is considered to be a good predictor of turnover (Mobley, 1982). A three item scale was used because the withdrawal decision is viewed as a multi-stage process (Blau, 1988; Mobley, 1977).

**Psychological Success** ( $\alpha = .79$ ) Psychological success is a measure of the degree to which a person feels successful on the job (Hall & Foster, 1977; Hall et. al.1978) and has been shown to be significantly correlated to job change and job involvement at early career stages. A six item scale ( $\alpha = .63$ ) used in these studies was used here.

**Post-decision dissonance** ( $\alpha = .87$ ) Because there is evidence that college students do not view their decision to join an organization as positively after joining as they did before joining, it was of interest to examine how graduates viewed their decision to join their organization. Borrowing from Mowday and Steers (1979), two items were used (no reliabilities reported).

Three additional scales (transition satisfaction, adaptation difficulty and stress) were tested as dependents to provide a global assessment of the relationship between tactics and attitudes toward the transition process. Each was derived from factor analyses conducted on original items within the larger instrument (complete detail available from author). All items developed uniquely for this study resulted in exceptionally clean loadings (average loading greater than .50 on the major factor and less than .20 for all other factors). Average loadings on major and non-major factors for these three scales were: transition satisfaction (.683/.090), adaptation difficulty (.654/.117), and stress (.586/.137). Reliabilities on these scales (shown in Table 2) were lower than desired but using Nunnally's (1978) heuristic suggesting an internal consistency reliability of at least .60 for instruments in their early stages of development, these are marginally acceptable for scale development purposes and provide a more conservative test of the relationships. Further scale development is needed.

### **Analysis**

Means and standard deviations were calculated for availability and helpfulness of each item. Means for the helpfulness scale include only those respondents who reported some availability of the tactic. Each tactic was considered individually since each is considered to be a separate strategy.

Stepwise forward multiple regression was used to evaluate the relationship between the availability and helpfulness measures and the ten dependent variables. The availability and helpfulness measures were entered separately as independent variables for each of the 20 tactics, yielding a total of 40 independent measures. Individual regression equations were then calculated for each of the job attitudes and process measures, yielding 10 regression equations.

## RESULTS

### Demographic data.

The sample contained slightly more males (57.1%), was predominately white (94.4%), mostly business and engineering graduates (36.8% and 25.7% respectively) with a GPA between 2.0 and 3.0 (59.3%). Respondents had been employed about 10.5 months at their current organization. For the majority of them (57.5%), this organization had over 1,000 employees, making this sample most representative of those working at larger companies.

### Availability

Table 1 reports means and standard deviations for the availability for the development tactics as well as percent of respondents reporting "never available". Most of the means are around "2" (defined as "available once or twice") indicating overall low availability of these tactics. Only two of the tactics, "fully utilize skills and abilities" and "learn on the job without consequences for mistakes," had a mean above "3" which was defined as "available several times." The standard deviations range from 1.12 - 1.53 indicating wide variation in the availability of these tactics.

It is also informative to examine the percent of respondents reporting never having the tactic available to them. On twelve development tactics, between 25% and 50% of the respondents reported never having access to that tactic. On three additional tactics, over 50% reported no availability (50.3% - informal training in a group; 60.6% individualized development plan; 62.7% - mentor or sponsor provided). Thus, there are many new employees who are not receiving appropriate training and development.

Table 1 - Descriptive statistics for availability (n=378) and helpfulness (where availability reported)

	AVAILABILITY			HELPLEFULNESS <sup>1</sup>		
	Mean <sup>2</sup>	SD	% zero avail	Mean <sup>2</sup>	SD	n
1-Formal training, Group	2.39	1.38	34.4	3.4	1.12	242
2-Formal training, Individual	1.92	1.13	48.3	3.51	1.08	197
3-Informal training, Group	1.87	1.14	50.3	3.34	1.04	178
4-Informal training, Individual	1.92	1.15	48.7	3.62	0.99	186
5-Meet with person last in position	2.89	1.49	25.7	3.78	1.07	273
6-Buddy with a co-worker	2.98	1.53	24.1	3.91	1.11	280
7-Mentor provided	1.91	1.41	62.7	3.55	1.19	132
8-Social/recreational activities arranged	2.52	1.15	20.6	3.07	1.19	287
9-Program to introduce important people	2.21	1.15	31.5	2.93	1.14	255
10-Program to learn facts about organization	2.28	1.13	27.0	3.14	1.1	269
11-Program to teach values, mission and norms	2.08	1.12	38.5	2.97	1.04	235
12-Program to teach "the way things get done here"	1.91	1.15	48.9	3.09	1.03	188
13-Discuss progress with co-workers	2.61	1.34	27.5	3.41	1.14	269
14-Discuss progress with supervisor	2.99	1.2	8.2	3.5	1.09	337
15-Show ability to senior mgt.	2.91	1.33	17.5	3.44	1.08	308
16-Program to learn to find resources	2.31	1.19	30.2	3.44	1.04	258
17-Fully utilize skills and abilities	3.12	1.23	11.6	3.87	0.99	328
18-Learn on the job without consequences for mistakes	3.11	1.28	13.0	3.79	1.08	320
19-Individual organizational entry plan	1.76	1.17	60.8	3.38	1.04	144
20-Job rotation	2.37	1.44	40.7	3.9	1.08	219

<sup>1</sup>Helpfulness means include only those items that were reported to be available in some amount so n's are different for each item.

<sup>2</sup>1=never available, 2= available once or twice, 3=available several times, 4=available often, 5=available very often

<sup>3</sup>1=not helpful, 2=somewhat helpful, 3=moderately helpful, 4=very helpful, 5=extremely helpful

### Helpfulness

The helpfulness means shown in Table 1 include only those respondents who reported some degree of availability and excludes those reporting zero availability. The helpfulness of the development tactics was generally high. The means ranged from 2.97 - 3.91 with all except one mean above 3.0 (3 = moderately helpful; 4 = very helpful) indicating that on average respondents found the tactics moderately to very helpful when available. In all cases the helpfulness mean is higher than the availability mean. The standard deviations are lower, ranging from .99 - 1.19, indicating considerable variation in perceived effectiveness of the tactics, but less variation than for availability.

### Dependent Variables

Job attitudes Descriptive statistics for job attitudes are shown in Table 2 below. Respondents were only slightly above the mid-point for job satisfaction and commitment (= 3.61 and 3.41 respectively). The standard deviation for both scales was relatively high (SD = 1.02 and .82 respectively), particularly for "job satisfaction," indicating wide variability in satisfaction and commitment. "Internal work motivation" was particularly high for this sample while the "post-decision dissonance" mean was particularly low. However, the latter must be viewed with caution since the standard deviation for "post-decision dissonance" was high (SD = .99). "Psychological success" was moderately high indicating that respondents felt fairly successful in their work.

Important to most organizations would be the low score on "intent to quit" (= 2.58) indicating that, on average, most somewhat disagreed that they would be seeking new positions. However, the standard deviation was very high (SD = 1.25). Closer inspection of the item frequencies shows that while 50 - 60% of the respondents do not intend to quit, there is a large group who are either ambivalent or intending to quit, which could be quite costly to the organization. Overall, these responses indicate mixed success by organizations in fostering important job attitudes.

Attitudes toward transition The transition attitude measures (see Table 2) indicate fairly high overall satisfaction with the transition (= 4.05). However, this transition apparently was not without difficulty or stress (= 3.34 and 3.24 respectively). There was considerable variability with standard deviations ranging from .71 - .80.

**Table 2 - Means and Standard Deviations for Dependent Variables**

Scale	$\alpha$	# Items	Mean*	SD
<b>New Employee Attitudes</b>				
Job Satisfaction	.85	3	3.61	1.02
Commitment	.91	9	3.41	0.82
Internal Work Motivation	.78	3	4.2	0.62
Job Involvement	.78	4	2.41	0.79
Intent to Quit	.91	3	2.58	1.25
Psychological Success	.79	6	3.76	0.6
Post-decision Dissonance	.87	2	2.05	0.99
<b>Attitudes Toward Transition</b>				
Transition Satisfaction	.61	2	4.05	.71
Adaptation Difficulty	.57	3	3.34	.78
Stress	.54	3	3.24	.80

\* 1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, 5 = strongly agree

### Research question 2: Relationships with dependents

The results of the stepwise multiple regression analyses are shown in Tables 3, 4 and 5. These analyses show that a substantial portion of the variance in important job outcomes can be explained by the tactics used by employers. For five of the seven job attitudes, the portion of the variance explained by the tactics was substantial: job satisfaction (32.9%), organizational commitment (35.0%), intent to quit (27.7%), post-decision dissonance (33.5%) and psychological success (30.9%). For the other two attitudes, internal work motivation and job involvement, the portion of the variance explained was substantially lower (17.5% and 12.4% respectively).

For the five attitudes where a substantial relationship was found, the variable accounting for the largest part of the variance in job attitudes was "fully utilizing skills and abilities." The availability of this tactic accounted for substantial portions of the variance in job satisfaction (25.4%), organizational commitment (20.6%), intent to quit (15.6%) and psychological success (20.4%). For post-decision dissonance, the helpfulness of this tactic accounted for 20.8% of the variance. In all of these regression equations, the variance accounted for by this tactic was substantially greater than any other variable. Of these five equations, all except commitment included both the availability and helpfulness variables with the second one accounting for only a small portion of the variance.

Most of the other variables remaining in the regression equations were "helpfulness" variables. The helpfulness variables appearing most commonly (though not uniformly in every equation) were: informal training, individual; program to learn facts about the organization; discuss progress with supervisor; and individual organizational entry plan. The psychological success equation added many helpfulness variables relating to some kind of social support (mentors, co-workers, person last in position).

The relationships with the attitudes toward the transition measures were not as strong (see Table 5). A similar set of independent variables as found for job attitudes emerged from the multiple regression analysis, explaining 21.7% of the variance in overall transition satisfaction. However, only 13.5% of adaptation difficulty and 7.9% of stress variance was explained by subsets of these independent variables.

### **Discussion**

Wide variation in availability of new employee development tactics was found. Generally, valuable support such as formal training programs, mentoring and programs to teach new employees the informal systems of the organization were not widely available. In most instances, a large percentage of the development tactics commonly thought to be available were not available at all. Equally important, most programs were perceived as moderately to very helpful when offered. In most cases, there was a large discrepancy between the availability and helpfulness means with helpfulness being higher.

The relatively large portion of variance in the five critical outcomes explained by the tactics (27.7% - 35.0%) clearly suggests that HRD organizations need to pay closer attention to their new employee development tactics. Through their new employee development interventions, HRD has the opportunity to significantly impact the outcomes of the hiring process. Changes needed might include closer monitoring of the intervention quality, greater customization to meet individual new employee's needs, more supervisor and coworker training in new employee development, and close monitoring of new employee attitudes. Because the cost of turnover is high, there is likely to be a large potential ROI for these interventions.

The most important tactic is providing opportunities for newcomers to fully utilize their skills and abilities in a manner that is perceived to be helpful. It is so common to see newcomers relegated to lower level tasks until they are "ready" for something more substantial. These data suggest that the most important thing an organization can do is to fully challenge the newcomer so they feel they are utilizing their abilities. College graduates in particular may be prone to feel that they have worked hard in school and don't want to feel they wasted their time.

When compared to previous studies cited earlier, several important differences emerge. First, the  $R^2$  reported here are much higher (around 30%) than Louis, Posner & Powell (1983) who reported 10 - 20%. This may well be due to the inclusion of the tactic "fully utilize skills and abilities" and other tactics. This study used twice as many tactics as theirs, providing more precision. Second, when the availability and helpfulness measures were entered into the regression model, the final model contained mostly helpfulness measures. Previous studies never considered the combined effect of availability and helpfulness, finding stronger relationships for availability. These data suggest that quality should be a bigger concern than mere availability. However the availability of opportunities to fully utilize skills and abilities do account for most of the variance in the job attitudes.

The relationships with the attitudes toward the transition were not nearly as strong. It is curious that overall satisfaction with the transition was the only one of the three outcomes where a significant amount of the variance (21.7%) was explained by these tactics. One explanation is that the other two, adaptation difficulty and stress, required the respondent to recall what had transpired in the past. It is likely that memories of difficult or stressful times may not be as poignant at the point the survey was conducted. In addition, after approximately one year on the job, much adjustment has taken place and those experiences may be seen from a more favorable perspective. Overall satisfaction with the transition, on the other hand, is a present attitude as are the attitudes toward the organization. Also, these scales had lower reliabilities than the job attitudes which clearly could limit the strength of the relationship.

It is often presumed that graduates will have adequate training and orientation programs provided by employers. These data suggest this is an incorrect assumption. Despite the high helpfulness reported here, many organizations are not providing these types of assistance to new employees. While the reasons can not be construed from this data, there is an apparent lack of attention paid to new employee development strategies and programs for new college graduates. HRD professionals need to recognize that new employee development is a powerful strategic tool with high costs if ignored. However, to be successful at it requires a more comprehensive approach than simple orientation programs.

For educators, these data suggest that greater attention needs to be paid to preparing college graduates for the transition to work since it can not be presumed they will receive the support from their employers. Work success requires a combination of task knowledge and skills along with workplace competencies. Educational programs must be extended to encompass the professional and organizational skills necessary to effectively apply knowledge and skills for work success. For example, programs should be offered in areas such as finding a mentor, learning about the informal ways of organizations, obtaining feedback from the organization, developing relationships with people in the organization and learning organizational culture.

Graduates should be prepared to be better self-directed and experiential learners since formal training appears limited. The most widely available

programs are informal ones which are also rated with high helpfulness. This may be a particularly difficult transition for college graduates since college is largely formal education and often does not develop self-directed learning skills adequately. In addition, organizational learning requires strong interpersonal skills since it is largely learning from other people. Graduates must be prepared to not expect the level of support provided by their colleges and college classes need to be modified to reflect these workplace realities.

These findings only add emphasis to the calls for greater attention to workplace competencies. The American Society for Training and Development commissioned a Workplace Basics study which recommended seven skill groups that are necessary to provide all persons with the basic skills for employment of any type (Carnevale, Gainer & Meltzer, 1990, p. 3). These seven groups include:

1. Learning how to learn
2. Basic skills (reading, writing, computation)
3. Communication skills (speaking and listening)
4. Adaptability skills (solving problems and thinking creatively)
5. Development skills (self-esteem, motivation and goal setting, career development)
6. Group effectiveness (interpersonal skills, teamwork, negotiation)
7. Influencing skills (understanding organizational culture, leadership)

These findings suggest that it is more important than ever that educators and HRD professionals enhance the quality and availability of programs to help graduates develop these skills.

**Table 3 - Stepwise multiple regression results for job satisfaction, organizational commitment and intent to quit**

Item	Partial R <sup>2</sup>	b
<b>JOB SATISFACTION</b>		
AVAIL17-Fully utilize skills and abilities	.254	.218
HELP14-Discuss progress with supervisor	.030	.068
HELP19-Individual organizational entry plan	.017	.052
HELP17-Fully utilize skills and abilities	.015	.129
HELP4-Informal training, Individual	.007	.045
HELP10-Program to learn facts about organization	.005	.049
R <sup>2</sup>	.329	
<b>ORGANIZATIONAL COMMITMENT</b>		
AVAIL17-Fully utilize skills and abilities	.206	.207
HELP10-Program to learn facts about organization	.084	.078
HELP14-Discuss progress with supervisor	.029	.008
HELP4-Informal training, Individual	.014	.092
HELP8-Social/recreational activities arranged	.007	.048
HELP19-Individual organizational entry plan	.005	.045
AVAIL4-Informal training, Individual	.005	.095
R <sup>2</sup>	.350	
<b>INTENT TO QUIT</b>		
AVAIL17-Fully utilize skills and abilities	.156	-.190
HELP10-Program to learn facts about organization	.056	-.110
HELP4-Informal training, Individual	.022	-.086
HELP14-Discuss progress with supervisor	.018	-.097
HELP19-Individual organizational entry plan	.006	-.081
AVAIL11-Program to teach values, mission and norms	.006	.131
AVAIL1-Formal training, Group	.008	-.105
HELP17-Fully utilize skills and abilities	.005	-.105
R <sup>2</sup>	.277	

**Table 4 - Stepwise multiple regression results for post-decision dissonance, psychological success, internal work motivation and job involvement**

Item	Partial R <sup>2</sup>	b
<b>POST-DECISION DISSONANCE</b>		
HELP17-Fully utilize skills and abilities	.208	-.125
HELP14-Discuss progress with supervisor	.037	-.067
HELP4-Informal training, Individual	.019	-.090
AVAIL17-Fully utilize skills and abilities	.018	-.168
HELP8-Social/recreational activities arranged	.011	-.084
AVAIL3-Informal training, Group	.013	.181
HELP1-Formal training, Group	.020	-.094
HELP19-Individual organizational entry plan	.005	-.055
HELP16-Program to learn to find resources	.006	.048
R <sup>2</sup>	.335	
<b>PSYCHOLOGICAL SUCCESS</b>		
AVAIL17-Fully utilize skills and abilities	.204	.093
HELP15-Show ability to senior mgt.	.040	.049
HELP2-Formal training, Individual	.025	.041
HELP13-Discuss progress with co-workers	.012	.035
HELP17-Fully utilize skills and abilities	.008	.055
AVAIL5-Meet with person last in position	.007	-.040
AVAIL18-Learn on the job without consequences for mistakes	.006	.040
HELP7-Mentor provided	.006	.055
R <sup>2</sup>	.309	
<b>INTERNAL WORK MOTIVATION</b>		
HELP17-Fully utilize skills and abilities	.108	.100
HELP8-Social/recreational activities arranged	.028	.103
AVAIL16-Program to learn to find resources	.013	.138
HELP16-Program to learn to find resources	.009	-.065
AVAIL8-Social/recreational activities arranged	.009	-.087
AVAIL7-Mentor provided	.007	.039
R <sup>2</sup>	.175	
<b>JOB INVOLVEMENT</b>		
HELP11-Program to teach values, mission and norms	.059	.065
AVAIL14-Discuss progress with supervisor	.026	.108
AVAIL18-Learn on the job without consequences for mistakes	.019	-.101
AVAIL19-Individual organizational entry plan	.012	.085
HELP8-Social/recreational activities arranged	.008	.047
R <sup>2</sup>	.124	

**Table 5 - Stepwise multiple regression results for transition satisfaction, adaptation difficulty and stress**

Item	Partial R <sup>2</sup>	b
<b>TRANSITION SATISFACTION</b>		
HELP17-Fully utilize skills and abilities	.130	.103
HELP14-Discuss progress with supervisor	.059	.095
AVAIL19-Individual organizational entry plan	.021	.085
HELP15-Show ability to senior mgt.	.007	.044
R <sup>2</sup>	.217	
<b>ADAPTATION DIFFICULTY</b>		
AVAIL6-Buddy with a co-worker	.075	-.121
AVAIL16-Program to learn to find resources	.014	.127
HELP14-Discuss progress with supervisor	.021	-.074
AVAIL19-Individual organizational entry plan	.011	-.090
HELP11- Program to teach values, mission, norms	.007	.070
HELP10-Program to learn facts about organization	.006	-.050
R <sup>2</sup>	.135	
<b>STRESS</b>		
HELP17-Fully utilize skills and abilities	.029	-.097
AVAIL12-Program to teach "the way things get done here"	.018	.136
HELP1-Formal training, Group	.019	-.063
AVAIL19-Individual organizational entry plan	.012	.035
HELP16-Program to learn to find resources	.006	.040
R <sup>2</sup>	.079	

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## STRUCTURING ON-THE-JOB TRAINING Part 1: background and research design

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### Introduction

Structured on-the-job training is a form of job-oriented training which is located in the workplace. The trainee performs practical assignments according to a training plan and is coached by an experienced colleague or supervisor. Mastery of the job tasks is formally assessed. This form of training is gaining the attention of both companies and researchers. At Utrecht University, the Netherlands, a research project was started in 1990 with the aim of developing a research based domain specific theory of on-the-job training. Following a literature review, two exploratory case studies, and a telephone survey on on-the-job training programs in Dutch industry and commerce data were gathered on on-the-job training programs in 9 Dutch firms. This research report is limited to micro-level data concerning didactic matters. Meso-level data concerning program development and organizational incorporation, will be separately reported. This first part of the micro-level research report covers theoretical background, research design and an overview of the nine cases. The second part of the research report, which contains the results of the investigation followed by a discussion, will be presented at the first annual conference of the Academy of Human Resource Development. A central issue in the discussion will be the amount and kind of structuring necessary in on-the-job training.

### Theoretical background

The term 'on-the-job training' is used in very different connotations, ranging from 'corporate training in general' (including corporate classrooms) to 'loosely coached learning-by-doing in the actual work setting' (excluding more structured forms of training, even if these occur in the actual work setting; see Bird McCord 1987). In this paper the term on-the-job training is used as an equivalent of on-site training (a term introduced by Wexley & Latham 1981) and denotes both more and less structured training in the actual work setting.

As a result of publications of Jacobs & McGiffin (1987), Rothwell & Kazanas (1990b), and others it has become commonplace to distinguish between unstructured and structured on-the-job training. Jacobs (1992) describes structured on-the-job training as a form of training that 'occurs in the actual workplace, makes use of training objectives and plans, requires the active involvement of a trainer, uses printed materials and job guides, and employs a systems approach'. One may wonder whether this is a definition or an ideal: what about on-the-job training that takes place without an active trainer or that is developed without use of a systems approach? It has been argued (DeJong, 1991) that structuring by means of training objectives and plans is just one way of structuring (another way being: structuring according to ongoing work processes). Moreover, several on-the-job training programs have been identified that rely primarily on active study by the trainee ('on-site study') instead of active instruction by a trainer ('on-site instruction'). On-the-job training has multiple forms. It could be argued that structured on-the-job training as defined by Jacobs is suitable for lower educated front-line employees but less suitable for artisans, professionals and managers.

There are some indications of the extent to which structured on-the-job training is practiced in business and industry. Rothwell and Kazanas (1990b) asked 127 ASTD members whether their company had any kind of instructor training. In the authors' perception the presence of such a training indicates the occurrence of structured on-the-job training. About two out of five respondents knew of a training for trainers in their company. DeJong (1992) asked 151 HRD-managers of large Dutch companies (of over 750 employees) whether their company offered structured on-the-job training (defined as

training taking place in the actual work environment with the use of training objectives and plans, assignments to be made in the work site, and some sort of formal assessment). Almost half the companies offered structured on-the-job training, albeit it to a relatively small proportion of the total staff in most cases. Both Rothwell & Kazanas and DeJong found the largest numbers of companies with on-the-job training among industrial production firms and bank or insurance firms, but this can easily be explained by the fact that these belong to the largest categories of big companies.

Some research has been carried out into the effectiveness of structured on-the-job training (Belbin, Belbin & Hill 1957, Cullen et al. 1976, Jacobs & McGiffin 1987, Jacobs, Jones & Neil 1992). This shows that structured on-the-job training takes substantially less training time than unstructured on-the-job training. The presupposition underlying this research is that unstructured on-the-job training is the bottom-line, and that time saving is the main criterion for effectiveness.

Research into on-the-job training processes (albeit not on-the-job training of the structured type) is reported by Scribner & Sachs (1990). Scribner and Sachs studied the way work and education, i.e. two separate activity systems, interacted in ongoing on-the-job training, as well as the way trainers move between responsibility for their work and their training, their choice of initial tasks for the trainee, the way they reorganize the work which is to be done in the trainee's presence, and the way they combine instruction with work activities.

Research into conditions for effective on-the-job training is rare, although several 'how to do' publications are available (Connor 1983, Sullivan & Miklas 1985, Broadwell 1986, Bird McCord 1987, Rothwell & Kazanas 1990a, Clark 1991, Wexley & Latham 1991).

The case studies reported here were planned to increase insight into conditions, processes and effects of structured on-the-job training programs. The researchers wanted to know how and why these programs were initiated, how they were embedded in the organization, how they were adapted to the needs of trainees and trainers, how the programs were designed, and what their effects were.

### **Exploratory case studies**

The case studies were made in two rounds. In the first round a structured on-the-job training program for maintenance personnel at the Nederlandse Spoorwegen (the Dutch national railways) and two structured on-the-job training programs for tanners and stackers at Hoogovens IJmuiden (a large blast-furnace plant) was the object of study (DeJong, 1993). This led to the following modifications of the researcher's conception of on-the-job training.

- Structured on-the-job training could not only replace unstructured on-the-job training (as was the case at Hoogovens IJmuiden), but it could be developed as an alternative for corporate classroom training as well (as was the case at the Dutch railway company).
- Time saving was an important reason for transforming off-the-job training into (mainly) on-the-job training: training could be provided in a much more flexible schedule due to individualization. Trainees did not have to wait until a course was provided. Trainers could schedule training sessions taking account of workload demands.
- In neither of the cases was job training purely located on the work-site. On-the-job training was supplemented with off-the-job courses, which dealt with the theoretical background or with skills involving risks.
- The timing of training was crucial to its effects, especially the timing of the off-the-job training component in relation to the on-the-job training process.
- 'Trainers' were assigned various roles. Some had an (active) instructor's role, others a (more reactive) mentor's role.
- Training materials (including manuals, work process descriptions, assignments) could substantially relieve the trainer's task.

- The development of training materials itself could lead to improvements in working procedures.

The second round of case studies will be discussed in greater detail below.

### Research design

Given the fact that so few theoretical and empirical studies are available on the topic of structured on-the-job training, the research was bound to have an exploratory character. The main research objective was to increase insight into (forms of) structured on-the-job training as realized in practice. This general objective was specified in 17 research questions, nine of which can be related to the micro level. Those nine research questions are presented below:

#### Persons involved:

1. Does the level of the trainee' previous education influence the process and the results of training-on-the- job?
2. Do trainee learning habits influence the process and the results of training-on-the-job?
3. Do characteristics of the trainer influence the process and the results of training-on-the-job?
4. Do supervisors/managers influence the process and the results of training-on-the-job?
5. Do colleagues influence the process and the results of training-on-the-job?

#### Didactics:

6. Are certain types of (structured) on-the-job training suitable for certain types of jobs?
7. What types of assignments were evaluated as being the most useful?
8. What characteristics of training materials were evaluated most positively?
9. What timing of on-the-job and related off-the-job training was evaluated as the most effective?

With regard to each of these research questions expectations were formulated, based on information from the literature and from the two exploratory case-studies. The expectations are listed below (numbers correspond to the numbers of the research questions).

1. Higher educated trainees will be most successful if the on-the-job training involves independent study.
2. Trainees who show initiative and openness to criticism will learn faster and better than trainees who wait and see and/or react in a defensive way to criticism.
3.
  - a. Effectiveness of on-the-job training depends on recruiting trainers who are professionally skilled, socially capable, and motivated.
  - b. The presence of capable trainers will depend on the HRM-policy with regard to this category of personnel.
4.
  - a. The more local supervisors show a serious attitude towards structured on-the-job training, the more this training will be realized as intended.
  - b. A serious attitude of local supervisors towards structured on-the-job training will be promoted by providing them with information, training and guidance, and by having them participate in needs-assessments, task-analyses, evaluations, and updating.
5. Positive attitudes of fellow-employees towards adult education will contribute to the success of structured on-the-job training.
6. 'On-site study' will be most effective for jobs with a substantial problem-solving activity component, whereas 'on-site instruction' will be most effective for jobs that mainly involve the following of rules.
7. Assignments will be evaluated positively if: a. the prerequisite knowledge is present; b. trainees receive, within safety limits, room to experiment; c. well-timed

- and clear feedback is provided; d. good results qualify for the performance of new tasks; and d. the assignment is clearly related to future tasks.
8.
    - a. Manuals will be judged to be more effective if they are regularly updated; treat most occurring tasks and problems first; treat both the 'how' and the 'why'; are clearly structured.
    - b. Practice with (copies of) materials available on the work-site will be experienced as meaningful.
  9.
    - a. Just-in-time training will be most effective. Just-in-time on-the-job training depends on the reduction of work pressure and well-timed teaching of theoretical prerequisite knowledge.
    - b. To be judged effective structured on-the-job training should interfere with production as little as possible. This can be achieved by using 'lee hours' for training; the gradual introduction of trainees into productive tasks of increasing complexity; delivering instruction by written or electronic media; reducing learning time by good instructional materials without.
    - c. Structured on-the-job training should not be hindered by production pressure. This can be achieved by allowing trainers time for training; regular assessment of trainee progress; common duty-rotas of trainer and trainee; appointing trainers who are sensitive for the training needs of trainees.

The concepts used in these expectations were translated into questionnaire-items. Five questionnaires were developed, for trainees (and former trainees), trainers, supervisors, managers and HRD-officers. A separate instrument was constructed for the analysis of relevant documents. Each item was placed in the questionnaires for those category of participants considered knowledgeable. As a consequence, many items were placed (if necessary in modified form) in more than one questionnaire. Interviews were held by students who were in their last year of the Utrecht University Educational Studies program. Numbers of interviewed persons per case varied from 7 to 19, with an average of 12. Some persons (those who were in a coordinating position) were interviewed more than once. By placing the same item in several questionnaires some 'triangulation' could take place; i.e. checking reports from different witnesses. Interviews were tape-recorded, typed out, and checked by the interviewees. Segments of the scripts were coded in relation to the concepts measured. Data from all the interviews for each case were summarized for each concept. Case-reports were written based on these summaries. The case-reports relate the collected data to the expectancies and the research questions formulated in advance.

### **The cases**

In the second round a selection was made of 8 companies (of over 500 employees), offering training programs designated as 'a type of structured on-the-job training'. In some cases one can conclude in retrospect that the training program studied did not satisfy Jacobs' definition of structured on-the-job training. In general, the training programs studied differ in amount of structure, as well in many other aspects. A common feature, distinguishing these programs from on-the-job training programs studied in the past, is that they neither are located in factories, nor prepare for technical production jobs. Table 1 provides an overview.

Table 1: Companies and functions

Company	Product/service	Function	Tasks of employee
1. ABN-AMRO	Banking.	Front-office workers, using a new computer system.	Advising clients/ administration of financial transactions with clients.
2. AERO Groundservices	Dispatch of airplanes, passengers, and cargo at Schiphol Airport.	Ground attendants.	Check-in of passengers/ controlling luggage/ticket control/operating bridges.
3. AMEV	Insurance.	Client administrators in the Collecting Division.	Dispatch of correspondence/ administration.
4. KNMI	Weather bureau/ meteorological office: Information on the weather.	Observers.	Observing the weather/report. Located in Schiphol airport and Vlissingen weather station
5. NS	National railway company: transport of people and cargo.	Front-office workers	Selling tickets/advising clients.
6. Peek & Cloppenburg	Clothing retail.	1. Salesman, 2. Senior salesman, 3. Department supervisors.	1. Selling clothes/ presentation/ service; 2. Ditto + supplementing/ maintenance; 3. Supply management + people management.
7. RABO	Banking.	Client advisors (front office).	Advising clients/selling savings- and insurance products/ managing client-and product-information.
8. Victoria Vesta	Insurance	Insurance-agents.	Advising clients/selling insurance policies/expanding clientele/ dealing with claims by clients.

In each case just one training program was the subject of study, with the exception of Peek & Cloppenburg, where three programs, for different functions, were studied. At KNMI two similar programs for comparable functions were studied.

### Results and discussion

In part 2 of this report (to be presented at the first AHRD- conference), the results will be presented, followed by a discussion.

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## BALANCING ACT: TEMPORARY EMPLOYMENT IN WOMEN'S CAREERS

Mary Jackle

There is a sweeping change in organizations world-wide as they move from employing mostly permanent full-time workers to hiring more temporary and contract workers. Studies of the temporary workforce show that it is growing faster than the economy in general, contains a majority of women, extends from clerical and blue collar to professional and technical occupations, and is expected to compose 50% of the workforce by the year 2000.

This change affects career planning, career development and training for today's workers. Will the option to become a contingent employee allow nurses, teachers, consultants and human resource developers to transition into new contractual, autonomous practice models which may be more relevant to the "Temporary Society" of the future? Schein (1980) stated that career management will become one of the major practical issues as society becomes more pluralistic.

### Temporary Work from the Standpoint of the Employer

Although temporary work has had the image of marginalized unskilled labor, 17% of temporary workers are now filling professional and managerial positions such as accountants, architects, chemists, pharmacists, physicians, and lawyers (Belous, 1989). Pfeffer and Baron (1988) also note the growing respectability associated with working at temporary agencies, even among high status occupations. The supply of workers and types of people and jobs suited to working on a free-lance basis has been increased, while loyalty and dedication to a single organization is probably no greater (and possibly lower) than it used to be. Thus there is an enhanced supply of externalized workers produced not only by demographics (more women and older workers) but also by changes in the normative orientation toward work and employing organizations.

Pfeffer and Baron align the trends toward diminished attachment between employees and their work along three dimensions: externalization of place (working off-premises); externalization through diminishing the duration of employment or by hiring workers for continuous but part-time employment; and externalization of administrative control, as is the case of temporary service workers who are responsible to and paid by another organization.

The shift from core to contingent workers benefits employers because of flexibility of scheduling that creates a "just-in-time" workforce, cost-savings in benefits and expensive training programs, and lower expenditures for personnel administration. Some employers hire temps to get around workplace law, such as equal employment. They can avoid employment freezes by using temps, and increase their productivity rates by not counting them. But it also creates problems such as motivation and work quality issues, different compensation and benefit systems within the organization, negative reactions from remaining core workers, and public relations concerns (Pfeffer and Baron, 1988).

### Temporary Work from the Viewpoint of the Employee

Factors that influence the viability of temporary employment found by Negry (1993) are: a regular and predictable work schedule, steady placements, and consistent hours that are under control of the worker. The temp must be able to maximize income with high wages and/or have alternative sources of support. Belous (1989) notes that the relative rigidity of the social welfare system in the United States and government-mandated benefits for full-time workers contributes to the lack of security for contingent workers.

### **Women's Double Day**

The dynamic between women's paid hours of work and domestic work has been studied from many viewpoints. Research shows fairly consistently that women working at paid jobs continue to be responsible for domestic work, the extent of these responsibilities have not been drastically altered, nor have there been major changes in family support systems (Glazer, 1980.) Both Glazer (1980) and Shor (1992) noted that household work and child care have become more complex over time and that technology and labor-saving devices have not decreased the amount of time spent in domestic labor. Hartman (1987) showed that when women enter the labor market, total time spent working increases because wage work is added to housework, even though time spent on housework tends to decrease substantially from 55 hours to 35 hours per week. The combined total makes a work week of about 65-70 hours.

One consequence of women's domestic responsibility is a so-called looser attachment to the labor force i.e. part-time, temporary and intermittent work, on the part of women as compared with men. Women may be out of the labor force at crucial times in career development and lose seniority and current skills (Coverman, 1983; Glazer, 1980). Studies of the discontinuous patterns of women's participation in the workforce suggest that choices women make adversely affect their earning capacity. Women favor part-time work, self-employment and work adjustment leading to lower productivity. Women's family responsibilities have and will continue to influence their work participation and their earnings. Bennet and Alexander (1987) questioned the "part time myth" held by employers that women who work part time are casual workers, psychologically uncommitted to the job, and traditionalists who place home and family as first priority. This myth legitimizes discrimination in pay, job security, scheduling, promotions and on-the-job training, because it devalues the human capital worth of these workers. They studied 215 women working at professional, clerical and service levels in hospitals, who had at least one child under age 18; and found that there was no difference between full and part-timers on length of employment or number of jobs. In fact, the part-time credentialed staff had a longer tenure and were more likely to maintain a stable employment pattern throughout the child-rearing years. Both full and part timers showed high commitment to their work and there were no differences in scores on labor force commitment, satisfaction with current work and types of general satisfactions sought on the job. There were, however, significant discrepancies in wages and advancement between the two groups.

My 1993 study of Registered Nurses, who had freely chosen temporary employment over permanent, full-time work; demonstrates how women use contingent employment to balance their professional and family lives.

This study was carried out in a single city in South Texas. Factors that are thought to affect career decisions were measured with survey instruments that gathered data on career anchors, life style, work history, professional development, current workforce participation and job satisfaction of 153 subjects.

The group demographics were similar to other studies of nurses: 94% female, mean age--39, 56% married, 20% separated, widowed or divorced, 65% parents with almost half having children under 18. The participants worked in five different types of contingent employment options: 33% employed by hospital pools, 21% moonlighting for multiple employers, 18% working for temporary agencies, 17% sent into the city by a national agency, and 11% accepting placements with a variety of agencies and pools.

Findings were analyzed on the basis of Adair and Mowesian's (1988) Career Decision-making Model. Driving forces that affected the decision to work as a temp

were higher pay, flexible scheduling, personal autonomy, the desire for a lateral career and opportunity to balance household work and paid work.

#### **Is temporary employment uniquely suited to women's career stages and caretaking roles?**

Many participants were experiencing "The Double Day." The average paid hours worked was 36 hours/week, and average unpaid hours of work at home for parents was 46 hours/week. Many married nurses worked for hospital pools, and reported an average of 20 paid hours/week. Sixty-four percent of the participants were satisfied with the balance between work and home. However, moonlighters were significantly more dissatisfied with the balance and tended to work for pay 50-72 hours/week.

The participants did not fit the stereotype of uncommitted, casual, unstable temporary workers. Sixty-four percent reported stable, continuous careers and more than 75% worked full time most of their careers. Another 23% combined nursing and homemaking with short absences from the workforce. Only 3% had a history of sporadic employment. The nurses averaged 8.5 years experience with a regular employer and 3-4 years in temporary arrangements.

The desire for a lateral career was important in this group. 65% had lateral careers and commented on getting more satisfaction from providing direct patient care than being part of management. Buscherhof and Seymour (1990) found that women who had made lateral career shifts felt that extrinsic forms of success came at the price of losing intrinsic work and home satisfactions that were important to them. Upward mobility is the model of success in our culture. If a person fails to move up, it is assumed that he/she is less talented or motivated. Lewin and Olesen (1980) suggested that some work trajectories, such as professions and crafts that depend on expertise, ought to be described as lateral rather than as aborted vertical ascents. In this group, 85% were satisfied with their professional success.

#### **Are temporary workers thriving or struggling to survive?**

In the article "The Temping of America," Time Magazine (1993) pointed out that the "mercenary workers" at the top of the skills ladder thrive, while the rest struggle to survive. At the time of this study, most of this group was thriving. Only 15% had no benefits. Their average individual and household incomes were above the state average as well as the average for nurses, even though 43% percent were sole wage earners and 13% contributed more than half of the household income. Their debt and savings levels were the same as for the rest of the U.S. population. A majority were satisfied with the number of hours they were working and only 6% would have liked to work more.

Changes that are forthcoming in the national health care system are bound to affect the nurse labor market in ways that cannot be forecasted. The socioeconomic environment is a changing one, and the viability of the temporary option in nursing may wax and wane.

#### **Are temporary workers casual, psychologically uncommitted to the job and marginal professionally?**

In this study, as in other studies of temporary nurses, the participants were better educated and more experienced than nurses in general. They reported strong participation in professional development activities such as continuing education, certification in specialty areas, membership in nursing organizations and current enrollment in academic programs. Their career anchors demonstrated a hierarchy of work values with altruism, service and autonomy ranking highest, closely followed by family commitment. Ambition for leadership

was last.

### **Implications for HRD Practice**

This study agrees with others that debunk the "part time myth" that women temporary workers are marginal people because they are trying to balance their lives, have lateral careers, and provide caring work in the home and community. It is important to reframe women's careers in terms of values, choice and varied career paths, rather than having the typical male career as the sole model.

Watkins (1990) urges Human Resource Developers to think of the organization as a learning system, using the expertise found in all parts of the system to promote learning throughout the organization. A holistic view of the organization includes contingent workers. The learning and skills of this group could be captured by inviting them to join committees, quality teams and task forces where a fresh viewpoint is needed. Because temps are adept at entering and sizing up a new situation quickly, they could be helpful in designing orientation programs for new employees. They are close to the problem of finding out what one needs to know, and would be able to identify crucial information and effective communication techniques. Since temps are versatile and work in many areas, they might be the best people to cross-train core employees for occasional work in other departments.

As temporary employment increases, Human Resource Developers will be called upon to develop new systems for orientation, assignment, training, feedback of contingent workers. They will assess the learning needs of externalized workers as well as the core staff so that quality standards can be maintained. Decisions about what work must be given to core staff and what can be done by temporary workers will require critical examination and perhaps job redesign.

On the academic side, professors who prepare young professionals need to examine their assumptions about careers. The rapidly-changing, adaptive and temporary systems in organizations are expected to increase job mobility and affect commitments to work groups. It is difficult to know how to socialize students for work roles which may be externalized. Students often do not have a work ethic based on blind and unquestioning authority or on tradition. Rather they are searching for balancing work and personal life and integrating job satisfactions into a new career concept. Professional schools can be highly influential in re-framing expectations, standards and values regarding what is a desirable career path, specially for women. As opinion-shapers, faculty can combat the harmful stereotypes and devaluation of women as failed careerists as judged by the male model.

Will Human Resource Developers own their jobs in the future? We may become contract or temporary workers as organizations restructure. If this is so, human resource developers now comfortably ensconced in organizations must consider adopting a more entrepreneurial attitude. A clear definition of their skills and an ability to market themselves will be crucial to survival. Moving on to the next place where one is needed appears to be the way of the future.

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## A Comparison of Trainer Opinions of Twenty Training Methods

Gundars E. Kaupin

Carroll, Paine, and Ivancevich (1972) and Newstrom (1980) compared training expert opinions of nine corporate training methods based on six criteria. Criteria include knowledge acquisition, problem solving skills, participant acceptance, changing attitudes, interpersonal skills, and knowledge retention. They found that lectures ranked low in most categories, programmed instruction ranked high in knowledge acquisition and retention, training groups ranked high in changing attitudes and interpersonal skills, and case studies ranked high in problem solving and participant acceptance.

This type of training research has been cited in several human resource management textbooks and has been used as a basis for comparing the advantages and disadvantages of various managerial training methods (e.g., Hodgetts and Kroeck, 1992; Wexley and Latham, 1981, Harris and DeSimone, 1994).

Since the Carroll et. al. and Newstrom research, technological advances have increased the variety of managerial training methods available. Computer conferencing, teleconferencing, and programmed instructions have become popular in corporations (*Training*, 1991, ASTD/ORC, 1986, Gordon, 1990). Furthermore, experiential training methods such as live cases and internships have become more popular (Stanton, 1992, Learned, 1992).

The Burke and Day (1986) literature review of corporate training method research has shown that the majority of studies (78 cited) compare two or three types of training at a time. For example, Maul and Spotts (1993) compared computer based training and classroom instruction Earley (1987) compared lectures to role plays, and Burke and Day (1986) compared lectures to discussions and role plays. Other research has used few training criteria (e.g., Preston and Chappell, 1990, Kaupins, 1989) or used only six training experts in a survey (e.g., Mayo and DuBois, 1987). This research uses the Carroll et. al. methodology but builds on it by analyzing the new training methods and additional criteria to rate training methods.

### Methodology

**Sample.** Respondents were 211 trainers (34% return rate) who worked in corporate training departments in the United States. They were found in the membership directory of the American Society for Training and Development. Fifty-four percent of the respondents were male. The average training experience was twelve years. Seventy percent of respondents worked in companies with 500 or more employees. Eighty-five percent of respondents trained both managers and non-managers.

**Survey.** Respondents rated the general effectiveness (1 = not effective to 5 = highly effective) of twenty training methods. Training methods included: lectures, discussion method, role playing, sensitivity training, TV lectures, movies, business games, programmed instruction, case studies, live cases (analyzing actual company problems), internships, one-on-one instruction, audio tapes, self-test timed instruments, non computerized self study programs, video conferencing, teleconferencing (audio only), computer conferencing, video tapes, and slides. The list of training methods comes from the Carroll et. al. (1972) and Newstrom (1980) research, a *Training* (1990) list of common training methods in corporate use, and an experiential training methods list by Learned (1991, *Organization Behavior Teaching Review*).

Criteria to measure training effectiveness come from the six used in Carroll et. al. paper. "Reducing training costs" was added based on, in my opinion, numerous studies incorporating costs in analyzing training effectiveness (e.g. Mayo and DuBois, 1986; Preston and Chappell, 1990; Yeaman, 1990; Mulder, Spithold, and Barents, 1991, Phillips, 1991).

To reduce order (and fatigue) effects, the location of the training methods on the survey was juggled. About half of the respondents received a listing of the training methods in the reverse order of the other training methods. Sex and years of experience effects were also checked.

## Results and Discussion

**Findings.** Live cases scored the highest among 20 training methods in terms of knowledge retention (4.38 score), problem solving (4.44), participant acceptance (4.42), changing attitudes (3.94), and knowledge retention (4.24). Audio tape scored best in terms of reducing training costs (3.48). Internships scored highest in terms of interpersonal skills (4.04). Self-test timed instruments and television lectures generally scored lowest on every category except reducing training costs. Sex and years of experience appeared not to be significantly ( $p < .05$ ) correlated with the cumulative ratings of any training methods.

**Contribution to Knowledge.** The present research provides some empirical support to the contention of various researchers that experiential learning and personal contact are recognized as effective training method characteristics by corporate trainers (Stuart, 1992). The highest rated (not counting the cost reduction measure) training methods tended to be live cases, internships, role plays, and case studies. These methods, in my opinion, tend to be the most experiential methods of training with the most personal contact. The higher ratings for training methods involved with personal contact apply for every category except for reducing training costs.

Technologically based methods such as videos and computer conferencing appeared to not be rated as highly as more person-based methods such as internships. Such results correspond to research by Kaupins (1989, 1991) that found that the more technology that was incorporated in a training program, the less humor and appreciation of the program occurred.

Generalization of the technology-based results, however, must be tempered by the fact that much of the technology is fairly new. Keyes (1990) found that many trainers resist technology-delivered instruction in favor of instructor-led training in spite of the perceived cost effectiveness of the technology. Trainers might not like advanced technology because the technology might "replace" them, the technology is new and requires different preparation than they are used to, the technology might limit the trainer's ability to interact with students, and the trainer might simply not know how to manipulate the technology enough.

The research results compared favorably to the Carroll et. al. (1972) and Newstrom (1980) research based on observation (statistical analysis to be done in future research). For example, case studies and the conference method were generally ranked high in all three studies. Television lectures received the lowest ratings among the three studies. Lectures appeared to have significantly higher ratings in my study especially in terms of knowledge acquisition. There was, for example, a 3.3 rating in my study compared to a 2.5 rating in the Carroll study for the knowledge acquisition variable.

**Limits to the Research.** The fatigue effect is a major concern in this study. My study significantly different from the Carroll and Newstrom studies in that twenty training methods are rated (as opposed to nine) and seven measures are used (as opposed to six). This means that respondent must do 140 ratings rather than 54. The fatigue effect manifests itself by the tendency of rater to give the same ratings for all seven training measures to the training methods listed last. This effect was controlled somewhat by the reversal of the order of the training methods for half of the respondents.

The present research asked respondents to rate the general effectiveness of the training methods. Research studies (e.g., Maynard, 1993) and textbooks (e.g., Harris and DeSimone, 1994) have shown that some training methods can be more effective for

some training topics, some trainees, some combinations of training techniques, and the amount of time allocated for training. Other variables that might influence the effectiveness of training methods include formal versus informal training, individual versus collective training, sequential versus nonsequential progression of students, and fixed versus variable time frame for teaching (Van Maanen, 1978). Kolb (1984) identified four learning styles (convergent, divergent, assimilation, and accommodative) that some training techniques would be better at than others.

Other training methods and instruments have not been included such as blackboards, overhead projectors, interactive videodiscs, virtual reality, and vestibule training, apprenticeships, and training manuals. Furthermore, one respondent commented that it is difficult to compare the effectiveness of training techniques such as lectures to training technologies such as videotapes.

Familiarity is another variable that could have influenced the results. Training methods that trainers tend not to be familiar with (or have not used) might be rated lower than methods they have used.

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Table 1  
Training Methods Survey Ratings and Rankings

Training Method	KA <sup>1</sup>	PS <sup>2</sup>	PA <sup>3</sup>	TC <sup>4</sup>	CA <sup>5</sup>	IS <sup>6</sup>	KR <sup>7</sup>	OV <sup>8</sup>
Audio Tape	2.8 16	2.1 17	2.6 17	3.5 1	2.3 13	1.6 15	2.4 16	2.3 (rating) <sup>9</sup> 16 (ranking)
Case Studies	3.8 4	4.2 3	3.9 4	2.9 10	3.5 6	3.3 7	3.8 5	3.7 4
Conference Method	3.7 5	3.4 7	3.8 6	2.9 9	3.3 8	3.2 8	3.3 7	3.5 7
Computer Conference	2.9 15	2.5 13	2.6 16	2.6 18	2.2 16	1.8 14	2.6 13	2.4 15
Games	3.6 6	3.9 4	3.7 5	2.7 15	3.3 7	3.4 5	3.5 6	3.6 6
Internships	4.4 2	4.2 2	4.3 2	2.5 7	3.5 2	4.0 1	4.2 2	4.2 2
Lectures	3.3 10	2.1 15	2.8 12	3.2 5	2.3 14	1.9 13	2.4 17	2.5 14
Live Cases	4.4 1	4.5 1	4.4 1	3.2 3	3.9 1	3.7 3	4.2 1	4.2 1
Movies	3.0 13	2.1 16	3.0 9	3.2 6	2.5 12	1.7 16	3.6 14	2.5 13
Self Study Programs	3.1 12	2.6 10	2.6 15	3.3 4	2.3 15	1.6 18	2.8 12	2.5 12

<sup>1</sup> Knowledge Acquisition

<sup>2</sup> Problem Solving

<sup>3</sup> Participant Acceptance

<sup>4</sup> Cutting Training Costs

<sup>5</sup> Changing Attitudes

<sup>6</sup> Interpersonal Skills

<sup>7</sup> Knowledge Retention

<sup>8</sup> Overall Average of Carroll et. al. categories

<sup>9</sup> Ratings based on 1 = not effective to 5 = very effective

Table 1 continued

Training Method	KA <sup>1</sup>	PS <sup>2</sup>	PA <sup>3</sup>	TC <sup>4</sup>	CA <sup>5</sup>	IS <sup>6</sup>	KR <sup>7</sup>	OV <sup>8</sup>	(rating) <sup>9</sup> (ranking)
One-on-one Instruction	4.3 3	3.7 6	4.0 3	1.6 20	3.5 5	3.4 6	4.0 3	3.8 3	
Programmed Instruction	3.6 7	3.1 8	3.0 11	3.0 8	2.5 11	2.0 12	3.2 8	2.9 9	
Roleplay	3.5 8	3.8 5	3.2 8	2.8 14	3.6 3	3.9 2	3.7 4	3.6 5	
Self-test	2.6 19	2.3 14	2.4 20	2.9 13	2.0 20	1.5 20	2.3 19	2.2 19	
Sensitivity Training	2.9 14	2.9 9	2.7 13	2.0 19	3.6 4	3.6 4	3.0 9	3.1 8	
Slides	2.8 17	2.1 19	2.7 14	3.0 11	2.1 19	1.7 17	2.5 15	2.3 17	
TV Lecture	2.7 18	1.9 20	2.5 18	3.3 2	2.1 18	1.6 19	3.0 20	2.2 20	
Tele-conference (audio)	2.6 20	2.1 18	2.5 19	2.9 12	2.2 17	2.0 11	2.3 18	2.3 18	
Videotapes	3.3 9	2.5 11	3.4 7	3.1 7	2.7 9	2.0 10	2.8 10	2.8 11	
Video Conference	3.2 11	2.5 12	3.0 10	2.6 16	2.6 10	2.2 9	2.8 11	2.7 12	

<sup>1</sup> Knowledge Acquisition

<sup>2</sup> Problem Solving

<sup>3</sup> Participant Acceptance

<sup>4</sup> Cutting Training Costs

<sup>5</sup> Changing Attitudes

<sup>6</sup> Interpersonal Skills

<sup>7</sup> Knowledge Retention

<sup>8</sup> Overall Average of Carroll et. al. categories

<sup>9</sup> Ratings based on 1 = not effective to 5 = very effective

## Political Scripts: An Exploration Into How Human Resource Developers Gain Influence

James Kirk  
Hal Shoemaker

In his book, *The Empowered Manager: Positive Political Skills At Work*, Peter Block (1987) discusses some of the "common ways people indirectly go after what they want" at work. Using his so-called "political scripts," this study explored the ways 118 human resource developers gain political influence in their organizations. The eight scripts used in the study include: (1)rescuer, person believes that influence is gained by saving lives; (2)looking good, worker has a need to look good at all times; (3)pleaser, employee feels a strong need to "fit in" and make others happy; (4)withdrawer, individual maintains her/his distance; (5)rebel, person resists authority; (6)aggressor, worker shamelessly and directly pursues personal goals; (7)formal, employee strongly believes in company rules, policies, and procedures; and (8)superrational, individual tries to understand what is happening as a way of coping.

According to Dubrin (1990) employees engage in company politics to varying degrees and for various reasons. He believes the prime motive underlying most political activity in the workplace is the desire to control people and resources. In 1959, French and Raven identified five types of power which enable managers to influence others; reward power, coercive power, legitimate power, referent power, and informational power. More recently Kipnis, Stuart, & Wilkenson (1990) reported that managers use negative administrative actions, clandestine tactics, coalitions, demands, direct requests, exchanges, rationale explanations for requests, supporting evidence, persistence, personal negative actions, rewards, self-presentations, training, and weak asks to influence others. They engaged in the influencing tactics to obtain assistance with their own jobs, get others to do their jobs, obtain personal benefits, initiate changes in the workplace, and improve their performance. The most frequently used tactics were "explained rationale for requests" and "direct requests." The least frequently used tactics were "reward" and "negative administrative action." Kipnis, Stuart, & Wilkenson further identified eight dimensions underlying the various influencing tactics. They included assertiveness, ingratiation, rationality, sanctions, exchange, upward appeal, blocking, and coalitions. The researchers found that as the status of the target audience increased, managers relied more heavily on rationality.

In 1984, Daniel Brass undertook a structural analysis of individual influence within a large newspaper firm. Relative positions of workers within the workflow, communications networks, and friendships groupings within the company were found to be significantly related to an employee's political influence. The researchers concluded that criticality (i.e., the degree to which an employee's work is critical to the ongoing work of others), transaction alternatives (i.e., work input and output alternatives that are available to an individual worker), and access to the communication network of the dominant coalition in an organization are significantly related a worker's influence. The work of Brass (1984) lends strong support to the dependency influence ideas of Emerson (1962) and the resource dependency notions of Hickson et al. (1971), and Salancik & Pfeffer (1977).

### Sample, Questionnaire, & Research Questions

Two hundred fifty (250) cover letters and questionnaires were mailed to human resource developers randomly selected from the American Society for Training & Development's 1992 *Who's Who In Training And Development*. One hundred eighteen (118) surveys were returned giving the study a 47% response rate. Those responding were primary white (57.63%) females (57.63%) with a mean age of 42.02 years. A majority of the respondents worked for service (33.9%) and manufacturing (22%) industries. They mainly held positions at the middle (39.8%) and upper (20.3%) management levels. The first 12 questions on the mailed questionnaire delved into respondents' personal/occupational and organization backgrounds. The remaining 40

questions inquired into respondent's work beliefs, preferences, and behaviors. Using a 5-point Likert-type scale participants rated each the 40 item as to how similar a belief, preference, or behavior resembled their own.

Four key questions were investigated (1) Do the responses of human resource developers on the Political Scripts Questionnaire support Block's eight political scripts structure? (2) To what degree do human resource developers hold selected political scripts, (3) Do the political scripts of human resource developers significantly differ with respect to the personal/occupational variables of age, gender, race, number of years in the HRD field, number of years with employing organization, position level, perceived amount of influence relative to others at same organizational level, satisfaction with amount of influence and how participative they perceive their organization's management style? and (4) Do the political scripts of human resource developers significantly differ with respect to the organizational variables, number of organizational levels, its industry grouping, and whether it is a for or not for profit firm?

### Data Analysis Procedures

To answer question one (i.e., Do the responses of human resource developers on the Political Scripts Questionnaire support Block's eight political scripts structure?), a correlation matrix was generated using 40 items pertaining to respondents' work beliefs, preferences, and behaviors abstracted from Block's profiles. The items appearing to be correlated with other items in the set of 40 were chosen to be included in a factor analysis. A Principle Component Analysis using an Orthotran Varimax rotation was subsequently performed to determine the underlying structure of the items.

To answer question two (i.e., To what degree do human resource developers hold selected political scripts?), factors resulting from the above factor analysis were treated as political script scales. Only factors containing at least two items with similar content and factor loading  $\geq .40$  were used. Means and standard deviation scores, along with mean item scores, were then computed for the resulting factors. Because the resulting factors contained different numbers of items, mean item scores for each of the factors were computed for the purpose of making comparisons across the political script scales.

One Factor Anova were performed to answer questions three and four (i.e., Do the political scripts of human resource developers significantly differ with respect to the personal/occupational variables of age, gender, race, number of years in the HRD field, number of years with employing organization, position level, perceived amount of influence relative to others at same organizational level, satisfaction with amount of influence, and how participative they perceive their organization's management style? and Do the political scripts of human resource developers significantly differ with respect to the organizational variables, number of organizational levels, industry grouping, and whether it is a for or not for profit firm?).  $P \leq .05$  was used to determine statistical significance.

### Results

Table 1 shows the mean and standard deviation scores for the 40 profile items on the questionnaire. The beliefs, preferences, and behaviors respondents perceived as being most similar to their own were "like clear objectives for tasks, helping others makes me feel good about myself, highly sensitive to others' discomforts, am generally talkative in meetings sharing large amounts of information with others, and strongly espouse democratic values and the virtues of participative management."

A correlation matrix of the 40 profile items on the questionnaire contained 20 items that correlated with at least one other item (i.e.,  $R \geq 2.36$ ). A Factor Analysis of the 20 items produced a nine factor structure. Five of the factors contained at least two items with similar content and factor loadings  $\geq .40$  (see Table 2). Based on the content of the respective factors they were labeled "Go For It," "Do Your Own Thing," "Do It Yourself," "Fit In," and "Be In Control." The five factors accounted for 64.1% of the variance among the 20 profile items and had intracorrelation coefficients ranging from  $-.416$  to  $+3.34$ . Mean factor, standard deviation, and mean item scores for the five factors are presented

in Table 3. "Go For It" with a mean item score of 3.636 and "Fit In" with a mean item score of 3.521 were the political scripts respondents felt they most strongly resembled. "Do Your Own Thing" and "Do It Yourself" with mean item scores of 2.444 and 2.623 were scripts respondents perceived themselves least resembling.

The One Factor Anova tests revealed several significant differences at the .05 level with respect to personal/occupational variables (i.e., number of years employed full-time in the HRD field, position level; perceived amount of influence, satisfaction with amount of influence, and how participative they perceived their organization's management style to be. Practitioners with 9-12 years of experience in the HRD field scored significantly higher on the "Go For It" scale than those with 0-4, 5-8, and more than 16 years of experience (see Table 4). Follow up *t* scores for the three comparisons were .903, .918, and .965 respectively.

Respondents in middle, upper, and top management level groups scored significantly higher on the "Go For It" scale than did those at the coordinator level (see Table 5). Follow up *t* scores for the three comparisons were .898, 1.014, and 1.252 respectively. Respondents in upper and top management levels scored significantly higher on the "Go For It" scale than did those in lower level management positions. Follow up *t* scores for the comparisons were 1.047 and 1.278 respectively. Respondents who perceived their influence to be "much greater" than others in positions at the same organization level within their companies scored significantly higher on the "Go For It" scale than did those who perceived their influence to be the same or greater than others in positions at the same organization level (see Table 6). Follow up *t* scores for the two comparisons were .828 and .857 respectively.

Respondents who were "extremely satisfied" with the amount of influence they had within their organizations scored significantly higher on the "Go For It" scale than did those who were "very satisfied" and "satisfied" with the amount of influence they had (see Table 7). Follow up *t* scores for the two comparisons were .863 and .975 respectively. Furthermore, respondents who were "very satisfied" with the amount of influence they had scored significantly higher on the "Go For It" scale than did those who were "satisfied" and "not very satisfied" with the amount of their influence. Follow up *t* scores for these two comparisons were .745 and .872 respectively. Respondents who were "extremely satisfied" with the amount of influence they had also scored significantly higher on the "Be In Control" scale than did those who were "satisfied" and "not very satisfied" with the amount of the influence they had (see Table 8). Follow up *t* scores for the two comparisons were .914 and 1.032 respectively.

Respondents who perceived their organizations having a moderately participative management style scored significantly higher on the "Go For It" scale than did those who perceived their organizations as being not very participative (see Table 9). A follow up *t* test produced a *t* score of .773. The One Factor Anova uncovered no significant differences with respect to the personal/occupational variables of age, gender, race, and number of years with the employing organization. Likewise, no significant differences were discerned with respect to the organizational variables, number of management levels, industry grouping, and whether the company was a for or not for profit firm.

## Discussion

The results of this study mildly supports Block's profiles of eight political scripts. Some of the beliefs, preferences, and behaviors Block associates with the various scripts did cluster in a pattern similar to what Block hypothesizes. For example: two out of two items on the "Go For It" factor appear on Block's "Be Aggressive" script; two out of the three items on the "Do Your Own Thing" factor appear on Block's "Rebel" script, two out of the two items on the "Do It Yourself" factor are on Block's "Withdraw" script, two out of the two items appearing on the "Fit In" factor appear on Block "Be Pleasing" script, and two out of the three items on the "Be In Control" factor are on Block's "Withdraw" script." However, the results of the study produced five as opposed to eight factors (i.e., scripts). Furthermore, only 20 profile items were found to be minimally to moderately correlated with one another. Of these 20 items, only 12 had factors loadings of  $\geq .4$  on the five factors.

Respondents in the study appear to have exerted influence in their organizations mainly by "going for it" while at the same time attempting to "fit in." They go for it by going after what they want and letting people around them know where they stand. One of the ways they attempt to "fit in" is nodding their heads in agreement when listening to other workers. To a lesser extent respondents exert influence by being in control. They attempt to remain in control by dealing with difficult issues at times when they have more control over the situations, avoiding conflicts, and sharing large amounts of information during meetings.

Respondents who take a "Go For It" approach tend to have between 9-18 years in the human resource development field, be at or above the middle management levels in their organizations, be extremely or very satisfied with the amount of influence they have, and perceive their organization's management style as being moderately participative. It would appear that their "Go For It" political strategy combined with their ability to fit in to their organization's culture has gained them promotions to managerial positions at or above the middle management level (e.g., 29.6% percent reported being at the "upper" or "top" levels of their organizations). Along with these promotions to higher levels of management have come increases in the amount of influence they perceive themselves having and greater satisfaction with the amount of influence they perceive themselves possessing. The strong relationship found between respondents' managerial level and perceived influence lends supports Brass's (1984) dependency theory of influence.

Human resource developers with 9-12 years of experience in the field display a significantly greater inclination to "Go For It" than practitioners with less and greater experience. Perhaps practitioners have to be in the field for a while before they feel comfortable with aggressively and openly going after what they want. Perhaps as practitioners gain experience in the field they find more subtle ways of exerting influence. For example, they may now be in a position to call in political debts owed them and use these paybacks to their own political advantage (Derr, 1988). It may be that when individuals stop being promoted or near retirement age they become less inclined to "go for it." Their energies may be redirected at "hanging on" or "planning for retirement living" (Super, 1990).

As to the practical implications the study holds for human resource developers seeking greater influence in their companies, the results suggest three things. First, these practitioners must go after what they want but be careful to adhere to the norms of the employing organization. Secondly, practitioners must get promoted to positions at or above the middle management level. By virtue of their control over resources, information, and the careers of subordinates, managers are able to exert more influence than individuals in nonmanagerial positions. Thirdly, human resource developers seeking positions at higher levels in their organizations may encounter more opportunities than their predecessors. Almost one-third of the respondents held "upper" and "top" level management posts. It is unlikely that such a large ratio of human resource developers would have held such positions five to ten years ago. Perhaps companies are becoming more "dependent" upon human resource developers to achieve their goals.

Table 1 Mean &amp; SD Scores On Political Scripts Profile Items

Item	M	SD
Like clear objectives for tasks.	4.119	.829
Helping others makes me feel good about myself.	4.11	.814
Highly sensitive to others' discomforts.	4.051	.726
Am generally talkative in meetings sharing large amounts of information with others.	4.017	1.109
Strongly espouse democratic values and the virtues of participative management.	4.017	.877
Have high standards which I will freely voice.	4.008	.938
Place a high value on being polite to others.	3.966	.816
Make a conscientious effort to nod my head when listening to someone.	3.907	.996
Strive for perfection in my work.	3.898	.89
Being able to understand difficult issues or messy situations makes me feel good.	3.898	.851
When faced with confusion or disappointment, I try to cope by understanding it.	3.780	.839
Let people know where I stand.	3.678	.914
Make a habit of going after what I want.	3.593	1.006
See others as being in need of my help.	3.458	.844
Would say to a subordinate, "I don't expect anything more from you than I expect from myself."	3.373	1.332
Happiest when my life and work are very orderly.	3.364	1.018
Keep myself and my work area clean and neat.	3.297	1.04
Willingly take the blame for mistakes rather than embarrassing someone else.	3.246	1.004
Willing to postpone getting what I want.	3.178	.854
Being able to "fit in" with people around me is of major importance.	3.136	.969
Attempt to please everyone, make them happy.	3.076	1.006
Comfortable with rules, policies, and procedures.	3.059	.963
I like to work with hard facts and data.	3.051	1.02
Avoid placing strong, explicit demands on others.	2.932	.976
Don't make a habit of bothering coworkers, prefer to take care of myself.	2.797	.911
Like to put off or avoid conflicts.	2.720	1.053
Like to wear clothes that are a little different yet acceptable.	2.712	1.095
Need to be constantly in control of the situation.	2.644	.872
Prefer to make up my own rules.	2.636	1.167
Like to deal with difficult issues at a later time, preferably when I have more control over the situation.	2.551	.966
Believe that only the strong survive.	2.492	.931
Prefer to work alone.	2.449	1.043
Don't care for all of that "touchy-feelie" stuff.	2.415	.972
Hesitate to bring up difficult issues.	2.415	1.024
Believe that my rewards will come in the next life, the next job, the next performance review.	2.331	1.046
Worry my supervisor will place demands on me that I will not be able to meet.	2.237	2.571
Enjoy conflict and disagreement.	2.229	.991
Consciously break the norms and rules of my employing organization.	2.161	1.021
Frequently lose track of my own feelings.	2.008	.779
Place little confidence in intuition.	1.992	.852

\*Items rated on a 5-point scale with 1=extremely dissimilar to me and 5=extremely similar to me.

**Table 2 Factor Loading For Political Script Items**

Item	Go For It	Do Your Own Thing	Do It Yourself	Fit In	Be In Control
1. Make a habit of going after what I want.	.706				
2. Let people know where I stand.	.505				
3. Am uncomfortable with rules, policies, and procedures.		.453			
4. Consciously break the norms and rules of my employing organization.		.451			
5. Enjoy conflict and disagreement.		.441			
6. Prefer to work alone.			.594		
7. Don't make a habit of bothering coworkers, prefer to take care of myself.			.570		
8. Make a conscious effort to nod my head when listening to someone.				.645	
9. Being able to "fit in" with people around me is of major importance.				.450	
10. Like to deal with difficult issues at a later time, preferably when I have more control over the situation.					.787
11. Like to put off or avoid conflicts.					.514
12. Am generally talkative in meetings sharing large amounts of information with others.					.424

**Table 3 Means and Standard Deviations For Five Political Scripts**

Item	Mean Factor Scores	SD For Factor Scores	Mean Item Score
Go for it.	7.271	1.723	3.636
Fit in.	7.042	1.582	3.521
Be in control.	8.288	1.73	3.096
Do it yourself.	5.246	1.659	2.623
Do your own thing.	7.331	2.168	2.444

**Table 4 Means and Standard Deviations "Go For It" Scores By Number Of Years Of Full-Time Employment In The HRD Field**

HRD Experience Groups	Mean	SD
1. 0-4 years of full-time HRD experience.	7.00	1.581
2. 5-8 years of full-time HRD experience.	6.481	1.451
3. 9-12 years of full-time HRD experience.	8.348	1.584
4. 13-16 years of full-time HRD experience.	7.412	2.002
5. More than 16 years of full-time HRD experience.	7.364	1.649

**Table 5 Means and Standard Deviations For "Go For It" By Level In The Organization**

Position Level Groups	Mean	SD
1. Coordinator.	6.474	1.389
2. Lower management/supervisory.	6.588	1.873
3. Middle management.	7.404	1.563
4. Upper management.	7.792	1.693
5. Top management.	8.000	2.049

**Table 6 Means and Standard Deviations For "Go For It" By Perceived Amount Of Influence Relative To Others At Same Organization Level**

Influence Groups	Mean	SD
1. No more, no less influence.	6.865	1.657
2. Greater influence.	7.238	1.511
3. Much greater influence.	8.409	1.843

**Table 7 Means and Standard Deviations For "Go For It" By Satisfaction With Amount Of Influence**

Degree Of Satisfaction	Mean	SD
1. Not very satisfied.	6.609	1.373
2. Satisfied.	6.841	1.613
3. Very satisfied.	7.700	1.664
4. Extremely satisfied.	8.579	1.677

**Table 8 Means and Standard Deviations For "Be In Control" By Satisfaction With Amount Of Influence**

Degree Of Satisfaction	Mean	SD
1. Not very satisfied.	10.087	1.535
2. Satisfied.	9.318	1.459
3. Very satisfied.	9.200	1.648
4. Extremely satisfied.	8.368	2.314

**Table 9 Means and Standard Deviations For "Go For It" By How Participative They Perceive Their Organization**

Degree Of Participation	Mean	SD
1. Not very participative.	6.706	1.605
2. Moderately participative.	7.310	1.615
3. Very participative.	7.690	1.828

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## THE IDENTIFICATION AND EVALUATION OF DIMENSIONS OF MANAGERIAL SUCCESS FOR DIFFERENT LEVELS OF MANAGEMENT

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### INTRODUCTION

As a result of the world changing rapidly all the time and the consequent demands in the economic, political, social and technological spheres, it is essential that managers at all levels should be developed to meet these demands to ensure the long-term survival and growth of a company. A company should therefore have a clear vision and strategic priorities in order to identify those dimensions which contribute to managerial success. Shortcomings or developmental areas can subsequently be identified amongst present and aspiring managers and development programs could be implemented to address these needs. Since there is a direct relationship between managerial success and organizational effectiveness, it is imperative that management development programs focus on those aspects that effect managerial success.

As far as the South African situation is concerned, the country is faced with certain realities on the labour front which will influence its competitiveness in the international arena. One of these realities is the estimated acute shortage of 100 000 managerial personnel over the next decade. Add to this an estimated shortage of 400 000 professional, technical and skilled workers, and then it becomes imperative that managerial potential be identified at an early stage and that people with potential be developed in accordance with the specific present and future needs of organizations.

### FACTORS INFLUENCING MANAGERIAL SUCCESS

Those factors that may influence managerial success are called different names by different authors. Katz (1955) and others refer to these factors as skills, while Mintzberg (1975) and Kotter (1982) use the term managerial roles. Camp, Blanchard and Huszco (1986) prefer to name these factors knowledge and skills. On the other hand, authors like Schroder (1989), Boyatzis (1982), and Prideaux and Ford (1988) refer to them as competencies, while Magerison (1988) uses a combination of skills, abilities and drives to describe these factors.

In comparing the terminology for skills, knowledge, roles, abilities and competencies of the different authors, it is evident that there is a noticeable similarity between them and that a generic list of skills or dimensions of managerial success could be compiled. The term "dimension" is preferred by the authors as it conforms to assessment center terminology.

However, several researchers (cf. Boyatzis, 1982; Bergwerk, 1988) have shown that the importance of these dimensions of managerial success differs in terms of their effect on or contribution to managerial success over different levels of management. Consequently one can conclude from this that developmental needs of managers at different levels of management will also differ. A further factor that must be taken into account when dealing with differential needs is the fact that the uniqueness of the organization in question also determines which dimensions of managerial success should be concentrated on when a management development program is developed for that particular organization.

Based on the literature survey, the following research problem was formulated:

Which dimensions of managerial success are considered important for managers at junior, middle and senior levels for the next 10 to 15 years and how do these dimensions differ across the different levels of management?

## METHOD

### Objectives

The specific research objectives for this study were:

1. To identify the specific dimensions that are considered important for every level of management.
2. To determine the relative importance of each of these dimensions for the different levels of management.
3. To determine whether there are any significant differences between levels of management regarding dimensions of managerial success.

### Questionnaire and sample

In order to meet the above objectives, a questionnaire consisting of 78 dimensions of managerial success, based on the research reported above (cf. Katz, 1955; Mintzberg, 1975 and 1980; Boyatzis, 1982; Sims and Sauser, 1985; Pate and Nielson, 1987; Dulewicz, 1989; Schroder, 1989; Handscombe and Norman, 1989; Mann and Staudenmier, 1991; Maclagan, 1992) as well as job analyses, was compiled and distributed to a stratified randomly selected group of managers at three different levels. The sample comprised 43 senior managers (Patterson D5 and higher), 108 middle managers (Patterson C5 to D4) and 233 junior managers (Patterson C1 to C4) in a large South African media company with 6000 employees. The relative importance of each of the success dimensions over the next 10 to 15 years for the three different levels of management was evaluated by managers on every level (senior management also did evaluations for the two lower levels) using a 5-point Likert-type scale. To aid the managers in evaluating the relative importance of the 78 dimensions each questionnaire contained a supplement with a definition for every dimension.

## ANALYSES AND RESULTS

As a first round of analysis the mean evaluations of the most important dimensions for each of the three levels of management were compared. The ten most important dimensions for senior management are: team building (4.87), decision-making (4.81), strategic planning (4.81), delegation (4.77), business attitude (4.77), negotiation (4.77), integrity (4.74), knowledge of industry (4.74), pro-activeness (4.71), judgment (4.71), and analytical ability (4.71). For middle management the ten most important dimensions are: perseverance (4.59), client orientation (4.55), integrity (4.52), decision-making (4.50), achievement motivation (4.47), team building (4.45), self-development (4.44), planning and organizing (4.44), motivation of subordinates (4.43) and listening skills (4.43). In the case of junior management the following are important: perseverance (4.59), client orientation (4.55), co-operation (4.55) verbal communication (4.51), firmness (4.50), achievement motivation (4.46), decision-making (4.46) self-development (4.45), self-management (4.44) and quality focus (4.43).

When the twenty most important dimensions are compared, the results show that six are common to all three levels of management. They are team building, decision-making, integrity, conflict resolution, the management of change, and firmness. Negotiation skills, delegation and pro-activeness are dimensions that are common to both senior and middle management, while perseverance, client orientation, achievement motivation, self-development, planning and organizing, listening skills and self-management are common to both junior and middle management.

In an attempt to reduce the 78 dimensions to a smaller number of manageable dimensions (factors), the evaluations of the total sample were subjected to a principle components analysis with Varimax rotation. Nine factors, explaining 53.8% of the variance, were extracted and labeled: financial and business management, management of people, self-management, environmental management, communication, information management, managerial sensitivity, operations management and managerial temperament.

Financial and business management comprise dimensions like budget management, business attitude, cost management, managerial knowledge, knowledge of the industry, knowledge of economic and business trends, ability to manage strategically, etc.

Management of people is made up of dimensions like individual and group leadership, motivation of subordinates, development of people with potential, team building, facilitating skills, etc.

Self-management has to do with self-development, self-confidence, personal motivation, management of change, etc.

Environmental management includes dimensions like knowledge of legislation, environmental sensitivity, judgment, networking ability, etc.

Communication covers both oral and written communication, co-operation, feedback, persuasion, listening skills, firmness, etc.

Information management embraces things like analytical ability, focus on results, systems and product development, research, gathering and synthesizing information, judgment, planning and organizing, etc.

Managerial sensitivity comprises dimensions like empathy, warmth, sensitivity, conflict resolution, negotiation skills, facilitating skills, customer orientation, etc.

Operations management is made up of dimensions like knowledge of products and services, systems management, office administration, security and safety consciousness, computer literacy, quality focus, etc.

Managerial temperament, the ninth factor, has to do with qualities like flexibility, judgment, consistency, stress tolerance, integrity, decision-making, perseverance, energy, etc.

The nine factor scores resulting from the principle components analysis were then subjected to a multiple analysis of variance, followed by a Scheff post hoc comparison test in order to determine between which levels of management significant differences exist.

The results indicate that significant differences ( $p < 0.001$ ) between factor scores for only three dimensions, namely financial and business management, communication and operations management, exist across all three levels of management. More specifically, it was found that financial and business management is significantly ( $p < 0.05$ ) more important for senior and middle management than for junior management and that operations management is significantly ( $p < 0.05$ ) more important for senior management than for middle management and junior management, and also more important for middle management than for junior management. The Scheff test failed to show any significant differences in the case of communication.

## CONCLUSIONS

The results indicate that although there are dimensions that are more important for certain management levels than for others and therefore lead to a certain degree of

uniqueness regarding the needs for each level, there are also a number of dimensions that are common to two or more levels. This finding is consistent with the findings of other researchers (e.g. Boyatzis, 1982; Bergwerk, 1988; Schroder, 1989) who did similar research in different organizational settings. The unique needs of a particular organization regarding the differences in dimensions of managerial success at different levels of management are also demonstrated.

Furthermore, it was found that there are basically nine dimensions (factors) of managerial success that are of importance within this particular company, and that specific dimensions are more relevant for certain levels of management than for others. Systems, strategies and programs for each level of management could consequently be developed for the purposes of recruitment, selection, management development, performance evaluation and succession planning within the particular company.

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## The Learning Organization: an Integrative Vision for HRD

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### Introduction

Two fathers were talking while waiting for a soccer game to begin. Fragments of their conversation follow:

*"Being a company man isn't worth jack s... anymore. We just laid off a guy who'd been with the company for 26 years. They can hire 2 new guys for what they paid one of him."*

*"Middle management is where I always wanted to be. Now, you're the most vulnerable. You get it from both sides. They can reduce costs by getting rid of you and the employees are glad."*

*"I laid off a whole division once. They weren't smart enough to see that they had to change to a new way of thinking so I fired and replaced every last one of them. It sounds cold and cruel, but they just wouldn't learn."*

*"Well, I work for the state. My brother will retire at 50 and I'll have to work till I'm 65. But I guess in a way, you're retired on the job when you work for the state. At least I'm secure."*

Listening to these fathers talk, we are struck by some of the implications of their perceptions. The workplace has changed — irrevocably. This is not the organization of our fathers and mothers nor even the organization these men first joined. There is disillusionment, fear, and resignation in the American workforce today. We find energy around initiatives that can transform organizations from this state of decline to renewed growth. From stagnation, organizations have the potential to learn their way to a state of productivity and Red Adair readiness. Like Red Adair, organizations have to be able to change at a moment's notice, to learn new technologies, and to adapt to changing values.

But this will not be easy. Some say the organization learns by accumulating the learning of its members. In other words, their skills and knowledge together create new organizational capabilities. Their prior experiences dealing with change, surprise, or threat create an existing capacity to respond to future changes, surprises or threats. But how does an organization embed a learning capacity in the climate of lay-offs, vulnerability, and retirement on the job described by these men? How does an organization learn when it is staffed by novices, temporary workers, and people whose hearts and minds have retired on the job? These, we think, are the challenges facing American business today. We cannot create a learning organization from this position. It is not accidental that there are few examples of learning organizations to date. We are talking about a fundamental redirection that must take place in order for a learning organization to be possible. This redirection is toward learning that is deep, transformative, and developmental. Today, corporations are eagerly embracing such large scale innovations as Total Quality Management, workforce diversity, empowerment, reengineering, and customer service. However, organizations often adopt these changes piecemeal, with lip service rather than in the spirit intended, or with major changes which alter the heart of the innovation. Alternatively, organizations adopt all of these changes at once without regard to the limits of human malleability or the learning implications for employees trying to learn a dozen new skills at the same time.

### Defining the Learning Organization

The learning organization is not a prescription, but rather a template against which to examine current practices such as these. Companies can learn their way out of the changes bombarding them. They can share practices and stories, but to simply adopt someone else's solution will not work. Learning organizations grow organically and each company will create a different configuration. A learning organization requires thinking like a sculptor. The sculptor of the learning organization has to see in her mind's eye, and shape structures toward, that which nurtures learning and then create, sustain, or alter existing approaches to foster this capacity. She will chip away at all of the existing

systems, attitudes, and practices which thwart learning. The practices that support or thwart learning are malleable. Many involve human interaction — the way we talk to one another, the way we use power and influence with each other, the way we collaborate, the way we interpret quality. At another level, these practices involve recreating the structural relationships and cultural norms in the organization.

Elsewhere (Watkins and Marsick, 1993) we have defined the learning organization as one which learns continuously and can transform itself. This means that it empowers its people, encourages collaboration and team learning, promotes open dialogue, and acknowledges the interdependence of individuals, the organization, and the communities in which they reside. Learning is a continuous, strategically-used process — integrated with, and running parallel to, work. Learning is embedded in an organization's memory of past wisdom, current repertoire of beliefs and actions, and future thinking processes. Learning can be incremental, that is focused on refinements to current strategy. Or learning can be transformational, that is focused on re-creating strategy because people understand the organization or its work in new, fundamentally different ways. In a learning organization, learning is embedded in an organization's memory of past wisdom, current repertoire of beliefs and actions, and future thinking processes. Embedded refers to a systematic effort to capture in some permanent way the learning of individuals and groups that seems, in some way, enduring. A learning organization must stand ready to save the gains without overloading the system too much, to reap the benefits of learning. The notion of embeddedness is best captured in the idea of organizational memory. Organizational memory refers to stored information from an organization's history, such as knowledge about what has worked in the past when certain types of problems occur. From the organizational memory, we can examine the consequences of past actions in order to better assess future results. Technology makes it possible to create on-line processes for capturing this learning.

Most learning organizations are seeking some kind of transformational change, in large part because they realize the wolf is at the door. The learning organization is more than the sum of the learning of individuals. The organization itself must learn. Organizational learning is a metaphor for adaptive responses to triggers in the environment. Organizations learn when people scan boundaries and use this information to shape innovative responses. Learning organizations encourage innovative thinking from everyone, not just the top level. Learning can be incremental, but the hallmark of the learning organization is fundamental change and this widespread responsibility for knowledge construction.

Learning goes beyond training. Learning is continuous, linked to daily work, developmental, strategic, and just in time. Learning is built into work planning, career paths, and performance rewards. Employees at all levels develop a habit of learning, asking questions, and giving feedback. They share their learning with others through networked structures, teams, and electronic bulletin boards so that it becomes part of the organization's memory. They are empowered to make decisions that affect their jobs. Learning is rewarded, planned for, and supported through a culture open to risk taking, experimentation, and collaboration.

### **HRD Strategies to Create Learning Organizations**

There are many potential entry points for a learning organization. Examples include action-reflection learning, programs modeled after GE's Work Out! that focus on work redesign, systems thinking, or mechanisms to learn from customers. Entry points build pockets of experimentation. They get people to work together on real problems to release their energies, tackle flaws in the system, and simultaneously learn. Whatever the entry point, the challenge is to build a culture that supports people in using new knowledge to make a difference. We do not think that the HRD department, working alone, can create such an island of learning. What this means is that the image of HRD as a separate function or discipline, divorced from its systemic interdependence with other strategic parts of the organization, can not conceptualize and create learning organizations. HRD as an integration of training, career development, and organizational development offers the theoretical integration needed to envision a learning organization, but it must also be positioned to act strategically throughout the organization (Watkins and Marsick, 1992).

Learning organizations require the creation of "practice fields" (Kofman and Senge, 1993) or "interstitial communities of practice" (Brown and Duguid, 1991) in which individuals learn experientially the new skills that will ultimately become their performance repertoire. Brown and Duguid (1991) note that in practice, individuals socially construct knowledge or wisdom which is shared in stories. This collaboratively created knowledge creates a community of practice which evolves reciprocally; as individuals learn to become part of the community of practice, they also transform it. This quality of cocreation is central to the idea of the learning organization.

Dialogue is a key strategy in the learning organization. Improving dialogue depends upon finding effective ways to help individuals and systems clarify their assumptions and mental models. This process begins with the assumption that shared meaning is desirable, but that it will be achieved not by proclaiming a dominant voice, but by acknowledging the pluralistic voice within organizations and working to achieve alignment at the level of vision, values, and meaning. Since meaning construction is both social and political, the process of dialogue must also be empowering and interpersonally centered. When organizations take a vision and mission statement developed by a top management team and then conduct workshops to "teach" it to the rest of the organization, they achieve alignment at the expense of empowerment. Learning organizations find means to surface the cacophony of their many voices and then to collectively agree on an encompassing vision.

### **Barriers to Creating Learning Organizations**

But there are also many barriers to creating learning organizations. We turn now to enumerating and describing several of them: an inability to change mental models, learned helplessness, tunnel vision, truncated learning, a return to individualism, cultures of disrespect and fear, entrenched bureaucracy, the part-time or overtaxed workforce, and managing vs. capitalizing on diversity.

A key individual barrier to creating learning organizations is *an inability to recognize and change existing mental models*. Mental models refer to the deeply held cognitive, value-based and feeling-fraught frameworks that people use to interpret the situations they encounter. In organizations, mental models can be individually or socially held. People build mental models through socialization and experience. People may or may not be aware of the models they use, let alone learn to test them. Yet, old mental models are not adequate today. A new enterprise is emerging: flat networks of multifunctional work teams (often self-managed) that are globally linked via technology; a more central role for professionals who are fluent with information technology and oriented to innovation; an empowered workforce who learn continuously; managers who lead through vision and influence rather than through command and control; and a general disillusionment with professionals who protect rather than share their specialized expertise. Moreover, as large organizations downsize, people must work solo or in small businesses. The mental models that have been associated with success in the old enterprise are often dysfunctional within the new organizational life forms. Organizations have changed suddenly and cataclysmically. Yet, it is difficult for many existing employees to change a lifetime of mental models and work habits so quickly. To do so requires challenging basic assumptions which threatens one's very identity at a time when alternative mental models are unclear and one's future seems vulnerable. People need skills that are not often taught and which take considerable time to learn such as transformative skills (Mezirow, 1991), action technologies (Watkins and Marsick, 1993), critical thinking (Brookfield, 1987) or scenario building (Schwartz, 1991). And they may not have the time. Even when the organization explicitly encourages a change in mental models, there is often a lag between the official vision and reality (Brooks, 1993).

*Learned helplessness* is another barrier which occurs when people have learned over time that they lack control over the consequences of their actions. In a subtle way, organizations may have rewarded employees for not taking responsibility for their actions (Watkins and Marsick, 1993) such as when employees find it difficult to fully participate in self-directed teams because they have never really been held accountable for business results and they would prefer not to be accountable. The learning organization demands a proactive, curious, self-directed learner. This is an about face for many employees, including managers and professionals who are unaccustomed to decentralized work.

Training programs often deliver skills needed for organizations to change, but do not address the deep-seated mental models and attitudes or the organizational structures and norms which perpetuate them.

Much has been said about systems thinking (Senge, 1990). We refer to a kind of *tunnel vision* that is created when people and organizations are unable to take the perspective of the entire system to address problems or new initiatives. It is tempting to teach systems thinking, but again, individuals are left with one more tool that is not supported in the organization. Norms and structures which support systems thinking are needed as well. Executives often espouse the learning organization as a solution, but back off when they encounter the systemic repercussions of such a large scale change.

Another barrier is truncated learning, or "ghosts of learning efforts that never took root because they were interrupted or only partially implemented" (Watkins and Marsick, p. 240). The impact of this type of learning is a watch and wait attitude in which, because past enthusiasm was not rewarded or was punished, implementation is to the letter of the law but not its spirit and risk is minimized. Almost any organization that has seriously tried to transform itself must have a collection of such ghosts, including learning organizations. Architects of the learning organization hope to thwart this barrier by creating a culture where mistakes or failures are opportunities to learn what does not work. This presumes that employees do not hold a grudge about past ghosts and that they now feel reasonably safe from repercussions while they are learning. Not only do employees lack faith and trust, but organizations also find it difficult to evolve to anything less than the "zero defect" culture which has been the hallmark of successful organizations in the past. Yet, a low risk-taking posture hedged with safeguards may have produced the ghosts and undermined the changes sought. It certainly has the potential to undermine the change to a learning organization.

A continuing barrier in organizations to implementing the spirit of community and collaboration characteristic of learning organizations is *the lingering power of individualism*. Many have questioned the appropriateness of innovations that depend on team work and collaboration, given the strong individualistic value system in the United States culture. We should also question a universal acceptance of group over individual contributions. Stories told by new entrants to professional and managerial jobs suggest that individualism is alive and well. A colleague of Marsick's said that she was surprised by the individualistic focus of students in her group dynamics class. When she talked about the theory of the collective in groups, she was nonplused when a student asked her where narcissism could fit in this theory. On the one hand, organizations seem to be moving increasingly toward team work, yet the forces of the shrinking economy push people to be increasingly competitive by outshining others, even when it is at the expense of the good of the group. From an historical perspective, this is quite significant because it is so markedly different from the "circle the wagons, help your neighbor" response of the 1930's to a shrinking economy. The me generation may not have a mental model of the collective or of collaboration.

*A culture of disrespect and fear squelches learning.* The 1993 strike by American Airlines attendants during the Thanksgiving holiday season illustrated the lengths to which a workforce will go when they perceive themselves as subjects of disrespect. The flight attendants, 85% women, struck because of "suspicion of senior management" even though economists, labor negotiators, and customers had little sympathy or expectation of success for the strike. "They treat us like we're disposable, a number" . . . "My self-respect is more important than my job" . . . "They treated us like we were back in kindergarten" (Kilborn, 1994, pp. A1,9). Respect is the foundation of an intrinsically motivated and continuously learning workforce. American's attendants are selected for their enthusiasm and commitment in the face of long hours, relatively low wages, and demanding work conditions. Many policies of the airline created this disrespectful climate. No where was this more dramatically clear than when management announced that they would hire "scab labor" rather than yield to the flight attendants demands for respect. Fear and entitlement theory is another manifestation of this facet of organizational life. Under the rubric of ridding companies of unproductive workers who have been overprotected by entitlements, employees are asked to earn their jobs every day or run the risk of being fired at will. Learning does not thrive in an atmosphere of fear.

An *entrenched bureaucracy* will have difficulty moving far enough to become the lean, flexible, fast-moving learning organization. Many large manufacturing organizations, as well as semi-protected service providers such as insurance companies, utilities, or telephone services built success on predictability and on training workers to implement a virtual mountain of well-developed, well-reasoned policies and procedures. Managers trained in this rule-encrusted milieu find it difficult to play anything other than the game they learned to play so well. It is ironic that large organizations such as many of these often have the resources and trained staff needed to implement a learning organization, but yet are often slowest to change as their very resources lull them into a false sense of security and their educated workforce does not want to throw away the intelligence gained and invested in a secure way of doing business.

Societal issues also interpenetrate organizational boundaries. One such challenge is the *part-time, temporary, and overtaxed workforce*. (Another, which we will not address here, is the under or unemployed workforce. And yet another, the global workforce.) Learning organizations are premised on a willingness and ability of individuals to contribute to organizations and on the creation of organizational conditions (time, resources, climate, rewards) that enable such learning. Part-time workers cost less and can be let go. At the same time, they may be less willing to learn what employers want them to learn (though possibly highly motivated to learn transportable skills). Temporary workers are also unlikely to feel motivated to share their expertise with others, to pass on what they have learned. As Volpe found (1992), overtaxed workers who remain after downsizing are often paralyzed by fear that they will be the next to go, demoralized by the betrayal of their psychological contract of lifetime employment, or increasingly political in the way in which they manage information and knowledge. While organizations may create a low commitment workforce for economic reasons, it will be difficult to initiate the high commitment changes needed for the learning organization. Moreover, if learning must be continuously reacquired, progress will be slow indeed.

Another societal drama which affects the learning organization is that surrounding the inclusion of those outside the white, male, middle and upper classes in mainstream politics, policies, and power. In organizations, this barrier emerges as *the struggle between managing and capitalizing on diversity*. "Managing" diversity carries the connotation that we will continue to control others--to keep this new voice from disrupting or challenging the norm. Despite a plethora of diversity programs, critics find that few take advantage of the full range of perspectives and values those outside the mainstream offer. Learning organizations capitalize on differences because solutions can often be found outside the norm and because they seek organizations where the norm is polyphonic.

### Conclusion

With so many barriers to creating learning organizations, it might seem likely that we would not be optimistic about the power of this metaphor for changing our vision of HRD practice. Yet, we are. A vision is something to strive for in the face of a dissonant reality. We think that there are many visions of organizations extant. Financial visions often see organizations as entities in a portfolio to be "harvested" whenever maximum profits have been realized and firing people as a quick way to get a blip up in the stock market. Engineers bring us "reengineering" which too often is a euphemism for redesigning work so that robots and machines can do what people once did. These are not images of development. So, with its flaws and perhaps even a little cock-eyed optimism, the learning organization is a sustainable vision for the development of the human in organizations. As such, it offers hope. Oscar Mink likes to say that human resource developers are the "love and truth" people in organizations. To this we would add that in these times, they must also bring faith in people and hope for the future.

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## **Community Change: Review and Implications of Several Change Models to Human Resource Development**

Allen B. Moore

### **Background**

Change happens! How does it happen? Can individuals influence what happens? Why do residents want to control or shape change that happens? What are the many options, opportunities, challenges and roles for change agents (volunteers, professionals and experts) in communities? Why should anyone be concerned about change, communities, residents, visitors, resource agents/agencies and change agents?

There are several processes, propositions or models that help residents, change agents and others to understand change. Some of these relate to the concept of change itself such as change theories and models. Some are related to the concept of "community" (Sanders, 1960 and Wilkinson, 1991) and how individuals work together for community improvements. Others are related to how individuals and groups learn including such ideas as reflection in action (Argyris and Schon, 1978), perspective transformation (Mezirow, 1978), change (Carnall, 1990 and Conner, 1993) and development (Schultz, 1961 and 1963). If the change is managed and controlled by local residents then empowerment (Freire, 1968) may be an active ingredient in the process. If empowerment is suppressed then there is cause to examine power relationships.

These are some, definitely not all, of the theories, models, guides and pitfalls that facilitators and change agents must be aware of and try to understand in their work with individuals in communities. Maybe these are some of the same variables, issues or frustrations that human resource developers are confronted with when working in the business and industry sector.

### **What is Change....?**

Thinking, feeling, and doing something different? (Duck, 1993)

Recognizing that something is wrong? (Carnall, 1990)

Related to learning? (Carnall, 1990; Tough; 1971)

Non-existent until the individual (or group) is confronted with a dilemma?  
(Mezirow, 1978)

Dependent upon resources identified either from within the individuals control or gained from other sources (i.e., human capital investments.  
..Schultz, 1961 and 1963)?

Developmental and related to human behavior and maturation processes  
(Stewart, 1991)

Change is all of these and more! Some theorist have expressed change as the actions or movements toward reducing the "gap" between what is presently known as the current situation and what is perceived to be the desired condition. Carnall (1990) has expressed this in an equation:

### **EC equals A times B times D (EC=A x B x D)**

"Where EC is the energy for change, A is the felt dissatisfaction with the present situation, B the level of knowledge of the practical steps forward, and D the shared vision." (Carnall, 1990, p. 99). High levels of A seem to require high energy for change (EC). Also, without high levels for knowledge (B) and shared vision (D) there can be problems with generating enough support (EC) to overcome felt dissatisfaction (A).

Carnall presents a related equation:

$$EC > Z \text{ (EC is greater than Z)}$$

"Energy for change is greater than the perceived costs of making the change, both economic and psychological." (Carnall, 1990, p.99). As related to the first equation, if we don't have a shared vision and have no knowledge of what to do then the costs for change may be perceived to be very high and probably not attainable.

### **Community**

The context in which I work is related to helping groups to identify their problem or dilemma and then assist the group to select ways that they believe they can solve their own situation or problem. Community (Sanders, 1966 and Wilkinson, 1991, Stewart, 1991, and others) has a long history of debate about contexts and implications. For this paper, community is a collection or group of individuals who share a common interest or situation. They may or may not be physically located near each other but they do have at their disposal adequate (and in many cases several) means of regularly communicating with each other either face-to-face or by telecommunications.

### **Community Development and Change**

Community development, according to Wilkinson (1991, p. 92) is one part of the larger process of community change. Community development implies some form of structure and organization in social interactions. Local residents work consciously to solve community problems. These actions can be viewed as trying to bring about change in the area or community. Characteristics of community development therefore include: sharing visions about conditions and needs; discussing issues with local residents; agreeing on local needs; identifying specific purposes or actions; getting started toward improvement of local conditions; and, keeping a history of actions/accomplishments for the community.

### **Models, Theories and Processes**

What models, theories and processes are basic to initiating, managing and monitoring change (Conner, 1993) in communities? As mentioned earlier, from a community development perspective (Sanders, 1966; Wilkinson, 1991), these could include: participatory involvement in the decision making process; empowering participants to identify their problems (Freire, 1968 and Gaventa, 1980); using facilitated meeting and action planning processes (Moore and Feldt, 1993); and looking at learning through a reflection in action and transformation process (Mezirow, 1978). Some of these models which help guide community change are described in the following sections.

### **Social Change Models**

Five social change models, were reviewed by Sashkin et.al. (1973) twenty years ago but they are worth mentioning here. They examined: 1) the research, development and

diffusion model associated with innovation as new information is gathered by research and development. This model is still active today as we consider diffusion of computers, software and fast paced changes in telecommunications technology. A second model, 2) social interaction and diffusion, illustrates how information flows from mass media through opinion leaders to users. This model also appears to be operative today as it relates to gathering information about political candidates as well as how local residents feel about emotional community issues such as locating a solid waste site in their community. A third model, 3) intervention theory and method focuses on the internal flow of information within the agency or community. Sashkin (1993, p. 514) cites Argyris who suggests using "interventionist" rather than change agent to describe someone who helps groups understand and generate problem relevant data, use this data to generate alternative solutions and make decisions and communicate commitment to these decisions. These roles are still useful today in working with community groups. The fourth model, 4) planned change, drawn from behavioral science literature, attempts to integrate social systems theory with individual and community interactions. Basic to these approaches are openly sharing information with all parties and using information for action. These processes are still used today with community groups where "visions", values, information and knowledge are shared and this information is used for action planning. The fifth model 5) action research, a process model, proposes that research information leads to actions which are evaluated and this leads to more information etc. so that there is a continuous cycle of research- action--research and each stage informs the next. Clients and communities learn from the continuous process. These processes are relevant today as community groups address and solve problems. Organizations like Highlander (Gaventa, 1980), use action learning as both the process and product of community change.

#### **Frameworks and Models**

Another guide for community change is the seven S's framework by Stewart (1991, p. 57-58) who cites Peters and Waterman which includes: structure, strategy, systems, skills, shared values, staff and style. Organizations can be analyzed using these S's to give the evaluator/assessor a better idea of how the organization (or community) functions. These same S's might also give the reviewer an idea of how the organization or community accepts, responds to and embraces change. Stewart, (1991, p 60-63), proposes a generic "gap" model to illustrate the change and learning processes. The model proposes movement from the current situation along a "journey of transition" toward an ideal or desired state. Pfeiffer (1990) cites Olmosk in presenting eight (8) models for change. These include: fellowship involving warm interpersonal relations; political where the influential agree to get things done; engineering where technical experts decide changes; confrontational where people "fight-it-out"; economic where the wealthy decide; academic where a rational approach to change is used; military involves those with physical force dictating change; and, applied behavioral science which uses a combination of approaches based upon the issue and people involved.

#### **Implications**

##### **About Community Development and Change:**

What are the implications from working with community groups about change and change processes? In the 1980's and 1990's community problems have been tougher to solve and involve very emotional issues. Crime, solid waste disposal, consolidation of city and county governments, managing environmental impacts on land use development, etc. have an impact across the community and everyone in the community has a vested interest in their solution.

More people want to be involved in the problem solving and decision making processes. They are not willing to leave the decision making to one entity or special interest group. This means that all parties being affected by a decision must be represented in the process. It is better to bring in all parties early in the process using heterogeneous groups rather than keeping some individuals or groups out of the process because they might not agree with the issues or decisions. It is easier to work out the differences of opinions early in the process rather than later.

Using facilitated meetings, decision conferences and heterogeneous group representation is a different type of problem solving and decision making process than those used in the past. It takes discipline to stay on task. It takes concentrated blocks of time when all parties are present, such as 2 and 3 day retreat type meetings, to work on these tough problems until they are resolved.

Experts and data do not dominate the meeting. The group determines the issues, topics and requirements for data. The group specifies questions, scenarios or other frameworks to help specify what information is needed from experts and what analyses are needed from existing or new data sources. In these type of meetings it is recognized that the group has knowledge, experience and understands the current situation and that they also have a vision of what needs to change.

#### **For Business, Industry and Government Organizations:**

Are business, industry, and government organizations the same as communities? Probably not but they do have some similarities. They employ people who have a knowledge of current situations, problems and needs for change. Employers, in the past, have not asked employees for their opinions and skills at problem solving. Even if they (employers) have asked for information, opinions and knowledge they did not listen. Now the situation is changing and employers want to know what employees know about problem solving, such as quality control, job re-design and how to minimize shrinkage (stealing) in the work place. Are employers listening?

If employers are listening here are some implications from community problem solving and change activities that might be of interest. If you don't trust workers to do their job and to provide information, reactions and strategies for change then don't ask them for their ideas or opinions. Also, when workers solve the problem it may not be the answer management was anticipating.

Give the group time to discuss, explore, think, research, try out ideas, opportunities for failure and opportunities for success. Artificial deadlines are creativity killers!

Just because a group of employees within a company or organization work at the same facility do not assume that they know each other or like each other or want to work together on some problems. Take time to introduce team or group problem solving and invest time in letting the group get to know each other and develop working relationships. Facilitated group processes can help to organize teams around shared visions and problem interests.

#### **For HRD and Other Faculty:**

Get involved in practicing what you/we preach! Identify and study old and new models, theories and guides for change, facilitate meetings, conduct decision conferences, design and implement task analyses, design and conduct change conferences, use low tech and

high tech group process strategies, conduct follow-up sessions with groups, share visions with groups and most of all involve students in these situations.

Good luck on your/our journey of transition!

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## IRRATIONAL ORGANIZATIONS AND IMPLICATIONS FOR SYSTEMIC CULTURE CHANGE INITIATIVES: A CASE STUDY

Liz Pierson  
Ann K. Brooks

A rational model of organizing for work has long been dominant, with its fundamental assumption that organizations exist to achieve specified goals (Scott, 1992, Zey-Ferrell, 1981). Efficiency through formalization characterizes the rational approach. The inadequacy of the rational model in an era characterized by impermanence and unpredictability is apparent in the widespread prevalence of large-scale cultural and structural change efforts as organizations seek to ensure effectiveness and survival.

As a result, organizational change is increasingly the focus of HRD practice. However, the design and management of change efforts continue the legacy of the rational view of organizations through company-wide programs in which a vision, mission and a statement of values are generated, and specific programs of change are undertaken with the intention of bringing the organization into alignment with the new vision. Such an approach is predicated on a stable and predictable environment and minimal interference from individuals or groups acting on behalf of their own political self-interests.

The following case study of a division-level change effort in a multi-national aerospace and defense corporation illustrates how a rationally planned change effort focused on recasting the organization's systems, but including fundamental changes in the organization's culture, as well, resulted in unintended outcomes.

Presentation of the study will be followed by discussion of the findings and implications for theory and practice.

### Method

The purpose of the research was to prepare a view of the change effort at the division level of the corporation to enable the division to take part in a national roundtable on sociotechnical systems change. The case study took place over a five month period during which one of the researchers spent extensive time in the organization talking to employees who played active roles in the change effort and reviewing documents. The initial tangible result of the research was a timeline of change-related events. This was prepared prior to interviews and was revised according to additional information from the interviews and an executive level meeting scheduled to help the researcher reconstruct the change process. Interview schedules included open-ended questions about participant roles in the change, employee perceptions of facilitators or barriers to change, the degree of change in the organization's systems that appeared to occur, and assessment of various facets supporting the change.

### Team-Based Total Quality Management

As a division of a multi-national aerospace and defense corporation, ABC Aerospace was established in 1982 to develop and manufacture products and services primarily for two sizable Department of Defense contracts. Currently, products and services include command, control, communications and intelligence systems, weapons control systems, tactical weapons development and production, weather systems and manufacturing of a wide range of electrical and mechanical products, with 90% of sales currently defense related. The company has increasingly been buffeted by changes in defense spending, including cancellation of the division's original contracts.

In October 1989, over 200 employees of ABC Aerospace, working in employee teams, began formulating a plan to ensure the future viability of their company. They

were charged by a new General Manager to formulate a mission and vision for the organization, identify new business niches, and to outline a strategy that would carry them into the twenty-first century. At stake were not only company profits, but the livelihoods of 2,000 employees and their families. Target business areas were selected and the Division was restructured, creating fourteen organizational teams devoted to product, technical and administrative specialties. As part of the restructuring, the number of formal layers of management was reduced from six to three. Responsibility for leading the organizational change was assumed by the Division's Steering Committee, which included the General Manager, Deputy to the General Manager, and Directors of Finance, Human Resources, and New Business Development. A milestone event was the creation of the following vision statement:

- To be a profitable company that customers seek to entrust with their business because of our commitment to quality, value, integrity, and customer satisfaction.
- To provide a challenging and fulfilling experience for employees in an atmosphere that fosters the building of high-performance teams and recognized involved people as the key ingredient to our success.
- To be a world class customer to our suppliers.

Accompanying the vision statement was a strategy that "relied on the quality of employees and their ability to create organizational effectiveness." It included the following points:

- Customer Satisfaction Is The #1 Priority
- Continuous Improvement A Way of Life
- Responsive to Market Conditions
- Team-Based Concept
- Based on Principle of Empowerment - Authority and decision making pushed out to the organization
- People Oriented Strategy - An involved, committed, flexible work force will become the basis of sustained competitive advantage

A systems model was adopted to guide the change process, relying at first on Weisbord's (1978) view of an organizational system, but evolving over the time to encompass elements particularly relevant to the division. A series of task forces was created to study the division's systems and recommend changes to achieve the organizational effectiveness strategy. Several sources of information and expertise contributed to the evolution of the change effort that came to be known as "Team-based TQM." Total Quality Management had been introduced at the division a few months earlier and was integrated with a team-based approach as the change progressed.

#### **A rational plan, A confused organization**

Many people had difficulty determining just what the new vision and strategy meant for their day-to-day operation. An executive who was active in all phases of the change effort questioned the efficacy of their new strategy:

We still don't have one (strategy) for the business. We went through target market teams and ostensibly coming up with a business strategy. We got good buy-in for the organization structure because it's in line with businesses that were defined. It comes out in strange forums that we don't have a strategy for

the division. I would expect it to come up if discussing business strategy, but it comes up in other places. I'm reading it as something really bothering people.

Others expressed the confusion and frustration created in the process of redirecting the division's efforts:

I don't think we have a clear vision that people can get on board with. The vision is platitudes. Many people just don't see what has to be done.

The division has a lot of really great people who are willing to work hard to make it a success. They're a little confused about what we are going to be when we grow up.

We were told to find a product, so we found a couple of products. Then we were told we were too narrow. So we spent the next year broadening our business focus, going after more things. We found products, but were told they were the wrong products. Then we were told our focus was too broad and that we should narrow our focus. So we keep redefining what we want. We're still searching for a product.

Failure to achieve improved business results after four years of effort was a major concern:

I think there is a definite flaw in how we have implemented our vision. The implementation does not focus on what we're here for--not focusing on making money.

With all that great stuff how come we're not doing better? In my opinion we stopped doing some tried and true business practices. We've read all the books, and all of that doesn't help if you've let go of fundamentals. Still have to make money.

Achieving understanding and agreement on the basic ideas underlying the change effort was challenging, and, in some situations, misunderstandings led to negative consequences.

It was difficult to understand the concepts. People would read books and so on and feel they understood but actually had different versions of what the concepts meant. When we would meet there was massive confusion. It took a lot of time for us to get uniformity of understanding.

All the directors believe in team-based TQM, but have differing views of what it is.

In general, with some of the concepts like empowerment I think it's misunderstood by the workforce. They thought it was a lot broader than management intended, so now management can be seen as hypocritical.

For example, the self-directed work teams arrow chart (showing progression from individual, group, team, high performing team, and self-directed, high performing team)--we told them we want to strive to be here (self-directed, high performing teams) if we can achieve it. It's been shown to be the lowest cost, highest performing structure to be found in industry.... Lots of folks thought they could treat teams as high performance self-directed teams and a lot fell on their faces because they didn't have the knowledge or skills they needed.

Employees were not only confused themselves about what the vision meant and how it could be implemented. They perceived that the organization's leaders were also having

similar difficulties. The words "don't walk their talk" came to characterize how some employees began to view leadership and started to see themselves as well.

There's more demand on leadership to walk their talk. Starting about six months into the change I started hearing that.

The most important thing is to walk our talk. We have not done a good job of living up to what we expect others to do. We say things, talk about them, then go and do something else.

People are eager for change. They like what they've heard but don't like what they see--see inconsistency in practice.

The nature of the changes and the lack of clear goals made measurement of progress enigmatic:

I have no idea how you would measure that. If you're on an infinite journey....

Management of change was seen as a fluid process rather than a formalized mechanism of feedback and course correction:

There is no on-going systematic process in place to determine when we need to go on to the next step. The next step just fills the need, we haven't planned out the next few years. It tends to be very systematic once we decide to do it, but there's no real true continuous loop.

There isn't a regular report. We have survey data, but there's a lot of concern about being scored. We have annual survey data and right now we use it as a thermometer, as a self-learning and development instrument. There's not really a formalized process.

Confusion about many aspects of the change prevailed. Questions about strategy, the nature of the change, behaviors to expect, and progress were shared by many in the organization.

#### **A blanket solution, a diverse organization**

Although this study focused on a small division of the corporation, achievement of organization-wide uniformity in utilization of team-based TQM was not achieved for several reasons. Unionized hourly workers in routinized jobs, highly educated employees performing sophisticated research and development, and an intermediate group of administrators comprised the diverse population. Funding issues surfaced early in the change effort, when differences in discretion over time use became apparent:

There were complaints that it was easy for individuals, say in finance, to work on teams and do all these things because they could just charge the time to their open charge number while the directs had to make up the time. Directs felt that indirects got a free ride. It led to some bitterness and division between the groups. It fed the perception, the questions of how serious were we. It leads to questions like "if it's important why won't you pay for it?" We couldn't afford to do it otherwise.

Teams have historically provided the structural foundation for development of sophisticated hardware and software systems throughout the aerospace industry, and ABC is recognized for its effective use of project teams known as "Skunk Works" (Carr, 1992). With that heritage, no one viewed the idea of high performing self-directed teams as part of the TQM effort as anything new or different. Training in team redesign was offered in early 1990, but since not all teams were funded, what turned out to be a significant contribution to later success was not available on a uniform basis. In addition,

collocation of administrative staff presented some special constraints to formation of teams:

The old paradigm for a functional group was to be centrally controlled, have a dynasty, group together and have others come to us for services. Now we're splintered to work with groups and don't have a sense of being a team. That also means we don't have access to team rewards. It's a special challenge for functional groups. They're not like a project team where there's a very straightforward concept of teams, know who the customer is.

Additionally, application of TQM to research and development project teams was problematic:

There's a major schism between those who teach the quality methods and engineering--engineers look at them as charlatans because their methods have been shown to be faulty but the quality people don't acknowledge their mistakes, haven't responded to the criticism. There is a real need to address the needs of the engineering workforce, not just present canned solutions. Process changes need to be accepted by the professional societies and get industry standardization, rather than the companies or apostles trying to make the changes.

### Discussion

An organization-wide change program is based on an assumption that the approach can be implemented in the same way throughout the organization. This study illustrates two ways in which this assumption was problematic at ABC Aerospace. First, the statements about vision, mission and values, although impressive on paper, were ambiguous to employees and thus, difficult to implement. Second, the diversity within the organization among not only individuals, but work units meant that programmed change strategies such as TQM and team-based organizations were interpreted differently according to specific context or needs. Thus, the diversity within the organization made rational change nearly impossible.

The effectiveness of rational change programs has been challenged in various ways by other researchers and writers, as well. For example, both Zey-Ferrell (1981) and Thompson (1982) challenge the existence of organizational goals based on broad-based consensus. Rather, goals are seen as an expression of the objectives of those in power positions which shift with the creation and dissolution of coalitions. This would suggest that the alignment of goals that many change strategists believe is essential to planned change efforts is optimistic. Mintzberg (1989) makes a similar point when he speaks of "emergent" and "realized" strategies in which strategy is identified during or after action.

More recently, Sitkin (in press) observes that proponents of changes present their views in ways which obscure their complexity. He notes, for example, that contradictory practices and principles of TQM tend to be obscured by claims of universality. Additionally, he claims that it is possible to distinguish between the goal of controlling established processes and the goal of innovating in an uncertain environment. In ABC Aerospace, individuals at different levels of the organization, in different specialties, and with different educational backgrounds, brought different "lenses" to the claims of change agents, and reached diverse interpretations.

This research has implications for both theory and practice. Our research suggests that a personification of the organization as rational is inadequate. Because change agents' metaphors for organizations inform their practice of implementing change, it is critical that these metaphors not be at odds with the experience of organizational members.

A metaphor for the organization consistent with the view of organizations as dispersed' social agencies (Thompson, 1982) would resemble a federation united by a

common purpose rather than a tribe united by common heritage, values, and perspective. Changes of strategic direction would continue to occur at the executive level of organizations. However, we suggest that the process of constructing the reality of that change would occur at the individual or group level and reflect the diversity of their goals, needs and interests relative to their own work.

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## Supporting Employees' Learning Transfer: The Role of the Manager and the Organization

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### Introduction

As organizations invest greater resources in training, they are also placing greater emphasis on the immediate and long-term outcomes of training's efforts. One result has been an increasing interest in evaluating training's impact on the organization and its members. While many organizations now conduct some form of evaluation, most only address how participants feel about the training program, typically measured through participant reaction forms administered at the end of a program (Carnevale & Schulz, 1990). Few, however, actually measure transfer - "the effective and continuing application, by trainees to their jobs, of the knowledge and skills gained in training-both on and off the job" (Broad & Newstrom, 1992, p. 6).

A synthesis of the expanding training transfer literature reveals that the degree to which trainees apply what they have learned from training experiences back to the job is not solely a function of the quality of training they were provided. In addition to a well designed and delivered program, three basic categories of factors have consistently been identified. These include: 1) the trainee, 2) the manager, and 3) the organization.

Factors related to the trainee are those characteristics inherent in the individual trainee. According to Robinson & Robinson (1989), reasons that promote or hinder transfer of trainee learning include the degree to which training participants:

- find personal satisfaction in using the skills and knowledge
- see a payoff in their use
- have previous experience with the material
- have opportunities to apply their new learning
- know when they are using the knowledge and skills appropriately
- have confidence when using their new learning

Dixon (1990) reports that when trainees apply newly learned knowledge or skills less than once every eight weeks, they are likely to experience "skill decay" which limits the likelihood of transfer and the accuracy of transfer when it does occur.

Managers are also thought to be critical to supporting the trainee's initial and continuing use of newly learned knowledge and skills (Beaudin, 1987; Broad & Newstrom, 1992; Robinson & Robinson, 1989; Wick & Leon, 1993). This involves the degree to which managers (or supervisors), actually help the application process and are models of the new behavior, are knowledgeable about designing training programs, and provide feedback to learners when they use their new knowledge and skills.

The third set of factors are those related to the organization. Trainees must also, however, be part of an organizational culture that supports the application of their new learning (Beaudin, 1987; DiMattia, Yeager & Dube, 1989; Robinson & Robinson, 1989; Yelon, 1992). These factors address the degree to which using the knowledge and skills has positive consequences for trainees, and whether there are barriers that impede transfer. Barriers might include the lack of a supportive physical environment, particular policies or procedures, a lack of time, the amount of feedback trainees receive from others in the organization, and the degree to which the culture supports the creative use of new knowledge and skills.

Over the past three years we each have had the opportunity to teach Human Resource Development professionals about designing training programs. One of us has taught a graduate level Instructional Systems Design course to 66 students, and the other has facilitated a one-day workshop called the "Design of Training Programs" to 180 participants. While the post course and workshop evaluation forms have provided useful formative feedback and consistently positive ratings, we have been concerned about the extent to which participants have been able to apply their learning back to the job. The purpose of this research study was to understand the ways in which these HRD professionals have used the knowledge and skills learned in the course and workshop, and to determine which of the three sets of factors (trainee, manager, organization) have had the most significant effect on the transfer of participants' learning.

## Method

A survey focusing on the three major factors thought to influence training transfer (Robinson & Robinson, 1989) was developed. The survey consisted of 26 closed and five open-ended items. It was pilot-tested two times by seven practicing human resource development professionals whose comments and suggestions were integrated into the final version of the survey. Using the list of 246 participants from the course and workshop, each participant's survey was coded with a number that allowed for following up on non-respondents. The survey's cover letter explained the purpose of the study and the survey coding process, and offered the opportunity to win a free one-day seminar (worth \$325) for those who returned their completed surveys. The surveys were mailed with a self-addressed stamped envelope. Each cover letter was personally signed by the researchers/authors. After two follow-up efforts, a final response rate of 73% (179/246) was achieved.

Following the analysis of the survey data, four 1 1/2 hour focus group interviews with 21 randomly selected survey respondents were conducted. After analyzing the survey responses it was determined that more qualitative data would help better understand the contextual nature of the manager and organization variables. Based on this need, a focus group interview guide was developed.

## Data Analysis

The closed-ended data were entered into a SPSS data file and analyzed using basic descriptive statistics and the chi-square test of significance. Since the levels of data were nominal, ordinal, or at best, weak interval, it was determined that the appropriate test of significance for non-linear associations would be the chi-square. Where appropriate, the tables were collapsed to ensure that each cross-tab cell contained more than five cases.

The qualitative data provided by the survey respondents were entered into a Hyperqual (version 3.0) data base. This program allows the researcher to enter field data and tag or code chunks of data which can be sorted into relevant categories. The open-ended survey data were entered into stacks, coded, and sorted by common themes and patterns. The focus group data were also analyzed using systematic content analysis procedures.

## Findings

### *Demographics*

The settings or industries in which participants are employed are quite diverse. The majority of participants, however, work in the Finance/Insurance/Banking (17%), Manufacturing (16%), Service (11%), and Healthcare (15%) environments. Nearly two-thirds of the respondents (63%) have been in their current position for less than three years, and 66% have had less than four years of experience in designing training and education programs. Of particular note is that the *vast majority (85%) spends 50% or less of their time designing training/education programs.*

Respondents were also asked to indicate how many training programs they have designed, or have been involved in designing since their participation in the course or workshop. People who indicated they had not done any design work, were asked to stop and return their survey. Of the 179 total respondents, 23% indicated they have had no opportunities to use what they learned from the course or workshop. Further analysis indicated a statistical relationship between how much time respondents are able to devote to training in their job, and how many programs they have designed ( $p < .01$ ). This finding indicates that the less participants are responsible for training, the fewer programs they are likely to develop which, not surprisingly, limits the degree of transfer back from the learning experience.

### *Factors related to the Trainee*

Six items composed the trainee factors section of the survey. A three-point scale was chosen to determine the general direction of participants' experiences. More than half of the respondents rated most of the factors related to themselves as "true all or most of the time." That is, they find personal satisfaction in using their new learning (58%), and they feel they have the competence (54%) and confidence (58%) to use their new knowledge and skills.

**Factors Related to the Trainee**

1 = True all or most of the time;  
 2 = True some of the time  
 3 = Rarely true or not at all

	<u>1</u>	<u>2</u>	<u>3</u>
• I find personal satisfaction in using the knowledge and skills gained in the workshop.	58%	38%	4%
• I now have the competence to use the knowledge and skills.	54%	43%	3%
• I now have the confidence to use the knowledge and skills.	58%	39%	3%
• I have had opportunities to apply the knowledge and skills.	58%	34%	8%
• I know when I am effectively using the knowledge and skills.	44%	49%	7%

Participants were also asked to indicate which of the three sets of factors have played the largest role in helping them transfer what they learned in the course and workshop and to provide one example. The findings indicate that 86% of the participants believe it is the factors related to themselves; *it is their own competence and confidence in applying the knowledge and skills that allows them the greatest ability to transfer their learning back to the job.*

Two themes emerged from the respondents' written explanations. One theme reflects their personal approach to their work. Their comments focused on their sense of responsibility, commitment to training, desire to succeed, enthusiasm for their job, the amount of confidence they had after the course or workshop, and the amount of control they have over their work. The second theme focused on the opportunities participants have had in applying their learning. Respondents described situations where they used what they learned very quickly in designing and delivering a training program. This immediate application increased their level of confidence that they were on the "right track." On the other hand, 18% of the respondents who indicated that this set of factors impeded their ability to successfully apply what they learned, almost exclusively focused on the lack of time they had to transfer their learning; they were either not able to schedule time to use the new knowledge and skills, or they were not provided opportunities to design programs soon after the workshop.

**Factors Related to the Manager/Supervisor**

This set of factors consisted of three statements describing managers' support of transfer. As with the first set, respondents were asked to rate how true each statement was using the same three-point scale.

**Factors Related to Your Manager**

1 = True all or most of the time  
 2 = True some of the time  
 3 = Rarely true or not at all

	<u>1</u>	<u>2</u>	<u>3</u>
• My manager helps me use the knowledge and skills gained from the workshop.	24%	27%	49%
• My manager is knowledgeable about designing training programs.	21%	30%	49%
• My manager provides feedback on how well I'm using the knowledge and skills.	25%	30%	46%

What becomes clear from the participants' responses is that they have experienced very little support from their managers in the transfer of their learning. Nearly half of the respondents indicated that their manager rarely or never helps them use the knowledge and skills from the course or workshop (49%), or is even knowledgeable about designing training programs (49%). Concerning feedback from their manager, 46% of the participants said their

manager rarely or never provides feedback on how well they are using their new knowledge and skills.

Further analyses confirmed that all three of the manager factors were found to be significantly related to participants' confidence in applying their learning. There was a significant relationship between the manager *helping participants use the knowledge and skills gained from the course or workshop* ( $p < .01$ ), the degree to which their manager *provides feedback on their application of the workshop content* ( $p < .05$ ), and the more *knowledgeable the manager is about designing training programs* ( $p < .05$ ), with the level of confidence participants have in transferring their learning to the job.

Of the respondents who indicated that this set of factors most impeded their transfer ability (23%), several specifically commented that it was often their managers' lack of knowledge and experience with training that prevented them from adequately providing the support participants needed for transfer. As one focus group member said, "Methods from the course are difficult to transfer unless your manager is trained in needs assessment, adult learning, etc. Some have a 'do it quick' attitude. Therefore, the essence of quality is not really practiced."

#### *Factors Related to the Organization*

Using the three-point scale again, respondents were asked to rate their organization's support of learning transfer.

Factors Related to Your Organization	1 = True all or most of the time 2 = True some of the time 3 = Rarely true or not at all		
	1	2	3
• Using the knowledge and skills has positive consequences for me.	60%	33%	7%
• Barriers (e.g. lack of time, physical environment, procedures and policies, lack of authority) prevent me from using the knowledge and skills.	21%	54%	25%
• I receive feedback about my effectiveness in using the knowledge and skills from others in my organization (excluding my manager).	28%	54%	18%
• The organization's culture supports the creative use of newly learned knowledge and skills.	31%	50%	19%

While most participants believe that using the knowledge and skills has had positive consequences for themselves (60%), the majority cited organizational barriers (79%), lack of feedback (72%) and the organization's culture (69%) as limiting their ability to transfer their learning some or all of the time.

Further analysis revealed that the greater the organizational support of training, as perceived by the respondents, the more the organization tends to provide feedback to participants about their use of the knowledge and skills learned from the workshop ( $p < .05$ ). Furthermore, *it appears that the greater the organizational support of training, the more supportive the organization's culture is for participants' application of newly learned knowledge and skills back to the job* ( $p < .01$ ).

But it appears that not all organizations' culture, processes, and structures provide the necessary support for transfer. When participants were asked to indicate which of the three sets of factors have most impeded their ability to successfully apply what they learned in the course or workshop, 59% said it was factors related to the organization. Three focus group participants explained, "Our culture is generally risk averse and is slow to change," "My organization is impatient to do new things - we change in a panicky way - it's reactionary" and, "Decisions are made too late to plan programs appropriately." Finally, several participants agreed with one trainer who said, "The organization believes training is important, but the money is pulled back when we have to get 'lean and mean'."

The cultures in each of these organizations tend not to support the training function in ways that maximize trainers' program design knowledge and skills. Additional comments made by the respondents focused primarily on three issues. First is the competing job

responsibilities of the participants. Participants repeatedly mentioned what little time they've had to adequately apply their learning. They know how they should design training programs, but find themselves trying to play catch-up to unrealistic timelines set by managers and others in the organization. As a result, they use less and less of what they've learned, and do the best they can to meet others' requirements. This finding is supported by the demographic data that show that 85% of the respondents spend 50% or less of their time in a training role. The lack of personnel and financial resources to adequately implement what they have learned in the design of the training process is the second issue cited by respondents. The third issue for participants is the lack of a supportive organizational culture. These participants find themselves continually trying to convince management of the need for thorough needs analysis, time for designing a quality program, and sometimes, for training in general.

Only ten percent of the respondents indicated that it was the organization that has most helped them transfer what they've learned. Some of their comments reflected the growth and demand for training in their organization due to ISO 9000, the implementation of total quality management, or a desire to expand the training role through a train-the-trainer program. Other comments pointed to their organization's generally supportive climate and philosophy about training.

### Discussion

The findings from this study provide additional evidence that for the transfer of trainee learning to occur, managers and organizations must visibly and concretely support the training and development function. The participants in this study had developed increased confidence and competence as a result of their Instructional Systems Design course and Training Design workshop experience. And yet, the majority recognized, that without managers' knowledge of the training design process who provide consistent and on-going feedback to participants once they've returned from a training experience, their ability to transfer their learning is significantly limited. Given this finding, it seems imperative that organizations seek managers of training who have at least some experience and education with the training function. Second, managers need to understand how training needs to be part of the strategic mission of the organization, and how they can work towards achieving this goal. But managers can not do this alone. The leadership of the organization must also recognize and actively support training's current and potential value.

Many respondents explained that their organizations talk a lot about the importance of training, but in reality little of that support was operationalized through the provision of adequate financial or personnel resources, especially by first and second level managers. A result of not having enough resources, is that these trainers feel they have little time to devote to adequately design effective training programs. The issue of time was mentioned repeatedly in the respondents' written comments. The situation has been further exacerbated by the number of organizations that have been downsizing which, in many instances, has resulted in trainers doing more with less. The good news is that several of the respondents suggested that they have seen a turning point and are beginning to experience an increased organizational commitment to training. While this study has proved informative and confirming of previous research, it nevertheless, raises additional questions that should be further investigated. Researchers and evaluators need to explore effective strategies for evaluating training transfer that focus on the organization's effect on participants' use of new knowledge and skills. Questions this study raises include: What can participants do to garner greater organizational support? What specific kinds of feedback or reinforcement do training participants need to help them transfer their learning? What is the relationship between the managers' ability to reinforce transfer and the organization's commitment to training and transfer? And finally, and most interesting to these authors, is, what are the tangible ways organizational culture affects the transfer of learning? We think there is much to learn about the transfer of training and hope this paper stimulates others to enter into this area of inquiry and discussion.

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## The Theory/Practice Conflicts of Needs Assessment

Catherine M. Sleezer  
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Carefully analyzing an organization's needs is the first step in developing human resource development (HRD) programs that improve individual and organizational performance. The importance of this step is well documented in the literature. In spite of this documentation, closer examination of needs assessment theory and practice reveals that: (a) a majority of firms do not use formal needs assessment in making human resource decisions (Saari, Johnson, McLaughlin, & Zimmerle, 1988), (b) only a limited amount of recent empirical work has been reported on this topic (Tannenbaum & Yuki, 1992), (c) HRD professionals have differing perceptions about needs assessment terminology, processes, and products (Sleezer, 1992), (d) the dominant paradigm for conceptualizing needs assessment, the discrepancy model, has been challenged as being insufficient for practical purposes (Lewis & Bjorkquist, 1992). Synthesized, these issues are not peripheral to HRD needs assessment, but instead highlight fundamental conflicts between the theory and practice. Reflecting on these issues raises questions about what we, as academicians and practitioners, can do to address human resource needs in a changing business world. In this paper, some of the underlying assumptions of needs assessment are challenged. The first section, by David Bjorkquist, challenges current use of the discrepancy model for needs assessment. The second section, by Michael Leimbach, suggests reconceptualizing needs assessment to better connect it to the organization's strategy and to improvement efforts. And the paper's third section, by Catherine Sleezer, focuses on further expanding the theoretical framework of needs assessment.

### Using the Discrepancy Model for Needs Assessment

In a recent article (Lewis & Bjorkquist, 1992), we suggested that the widely advocated discrepancy model for needs assessment is inadequate for describing the practice of experts and that it more accurately describes the way in which novices approach needs assessment. To determine needs, the discrepancy model focuses on the difference between ideal performance and actual performance. The model is a simple depiction of the needs assessment process that may be used, to some degree, by all needs assessors. But extensive research on the problem-solving practices of experts (see citations in Lewis & Bjorkquist, 1992) and observations of experienced needs assessors make it clear that the discrepancy model does not accurately portray what they do. Prevailing notions about needs assessment should be questioned in order to develop better understandings about actual practice and what should be taught about needs assessment.

What is written and taught about needs assessment should break out of the closed loop in which authors cite themselves as evidence that what they say about needs assessment is valid. Detailed systems have been developed to describe discrepancy model needs assessment that suggest that needs assessment can be made a precise technology. These systems do not acknowledge the disarray that commonly exists in the work place and they disregard the artistry of the expert needs assessor. The systems to describe discrepancy model needs assessment may be highly reliable (i.e., internally consistent) but they are infrequently tested for validity. We advocate that the scholarly study of needs assessment should:

1. relate to the growing body of knowledge about problem-solving expertise,
2. utilize the practices of expert needs assessors, and
3. apply to the ambiguous, volatile work place settings in which it is practiced.

The pattern of problem-solving by experts typically does not fit the discrepancy model. Experts employ strategies that allow them to use the level of knowledge that they have acquired and to quickly integrate new knowledge in solving problems. In some ways, needs assessment presents an unusual case for consideration in that needs

assessors often are experts in the process of needs assessment and are not necessarily experts in the field of practice in which the needs assessment is being conducted. Needs assessors frequently work with subject matter experts. With repeated opportunities to conduct needs assessments in a given field, the needs assessor acquires some subject matter expertise. But, the differential contribution of knowledge of the process of needs assessment and the subject matter expertise to the accomplishment of successful needs assessments is not known.

An example from practice illustrates this point. A successful needs assessor of my acquaintance has more than ten years of human resource development practice with many medium sized firms engaged in manufacturing. He relates that they are responding to many of the same challenges in their arena of enterprise. Their operations may include quality initiatives, installation of "smarter" equipment, just-in-time systems for procurement and production, flattened organization structure, greater customer responsiveness, shorter production runs with more customized products, multiple job skill expectations for employees, integration of planning and production functions, and smaller numbers of workers. He has come to recognize that a variety of these changes are occurring simultaneously in many organizations and programs to bring about change are layered on top of each other. It can be difficult to trace a particular employee action to a specific organizational goal. Chaos exists.

There is not a standard needs assessment for these circumstances but this expert begins by asking what has changed. It is his experience that the need for training and other interventions arises out of change. Further, each kind of change usually results in similar consequences. These consequences point out problems for remediation or opportunities for improvement that the organization seeks to identify. Some well-directed questions and observations can verify the accuracy of the diagnosis. There may be no baseline for performance (present condition) and the expectations because of the changes that have been made (desired state) are vague. The aspiration is to become as good as possible. The discrepancy model is stored in the mind of this expert needs assessor but as a needs assessment artisan he does not need to deal with the extra baggage of a complex systems approach to needs assessment.

It may be asked how accurately the needs of the organization are identified and whether or not the most important needs are given the highest priority by the needs assessment methods used by this expert. Undoubtedly there are errors on both counts. There are two primary considerations about needs assessment accuracy. The first is that there are many training and organizational interventions that will improve the effectiveness of most organizations and finding the "one" solution that will make the most difference is not a necessity. Furthermore, it is common to find that an operations manager has reasons that are contrary to the needs assessor's frame of reference for choosing a particular training goal or other solution. The second matter is that the outcomes of needs assessments are highly perishable and may not be valid for a very long time within the climate of rapid organizational change. The gaining of a new customer, a product change, or a new regulation can create new needs for training. The expert needs assessor, who was described earlier, knows these things and realizes that upon learning the nature of the problem, he must recommend training solutions where they are appropriate and other interventions as they are needed and urge his clients to act as quickly as possible.

The transitory nature of conditions in many organizations urges ongoing needs assessments conducted by those who are close to the activities of the enterprise. The practice of using needs assessment "shamans" may be impractical because they may not be able to keep up with the changes occurring in all of the locations within an organization. The responsibility for needs assessments may be dispersed within organizations in a manner similar to the responsibility for conducting on-the-job training. If needs assessments are going to be conducted by subject matter experts who do not have extensive training in needs assessment, it calls for identification of the skills required to produce a valid needs assessment.

The field of HRD is short on solutions to problems such as these. The refinement of old systems will not serve the new situations of today. There is enticing research evidence that experts solve problems in ways that will advance our understanding of needs assessments. There is impatience in the environment in which needs

assessments are conducted. As we stated before, "It is untenable that the discrepancy approach should be the sole model through which the field diagnoses needs" (Lewis & Bjorkquist, 1992, p. 50).

### Better Connecting Needs Assessment Practice and Theory

In examining the relation between theory and models for needs assessment and the practice of needs assessment in organizations, several issues emerge that suggest a need to reconceptualize our current theories, and current practices, to better meet the organization's needs for information in guiding training and development action.

#### Cycle Time

It is to some degree a cliché to say that the speed of change is increasing, but the need to respond to at least the perception of rapid change is a necessity for the needs assessment processes. Much of what drives this emphasis on speed is the impact of global competition and changing market needs. Organizations need to respond to changing market needs and expectations. Diverse global customers require mass-customization and adaptation of new technologies. For example, three years ago CD-ROM technology was all but absent from the consumer market. Now experts are projecting that over 40 million CD-ROM drives will be in customers' hands by the end of this year. This rapid change is paralleled in almost all industries.

Changing market demands drive changing organizational structures. Spans of control change frequently, job descriptions become obsolete the moment they are finalized, departments are formed and then disbanded numerous times each year, and an increasing proportion of work is being completed not in stable work units but ad hoc and temporary teams.

All of these changes impact the training and development function directly. Organizations are no longer going to wait 6 to 12 months to research, design, develop and deliver training programs. For many organizations, not conducting a needs assessment is not an issue of money or desire, it is an issue of time. To maintain and increase the usefulness of needs assessment, we must find ways to shorten the time needed to collect data, analyze findings, formulate conclusions, and present recommendations. While far from definitive, we may want to consider solutions in the following areas:

**Anticipatory needs assessment.** Do we have the luxury to wait for a decision-maker or stakeholder to define the parameters of a needs assessment before we collect data? Or should we focus energy on trying to predict the information needs and collect data in anticipation of the question? I have found that organizational leaders are less interested in the cost of an analysis than they are in having the information when they need it. We need to develop anticipatory needs assessment processes.

**New data collection techniques.** Computer and telecommunications advances provide us with new alternatives to traditional mail surveys and focus groups. In addition, the use of non-professionals in the data collection process could also reduce cycle time. Having employees or managers assist in data collection, with the appropriate protocols, can extend the reach of the primary investigators. We need to study the impact of these data collection techniques on the quality of the data and the findings.

**Connecting Changing Market Needs To Needs Assessment.** The purpose of needs assessment is imbedded within a broader context of organizational change and improvement. However needs assessment processes are often kept at arms length from both the down stream (organizational strategy) and up stream (improvement efforts). While there are various reasons (maintaining an unbiased perspective, avoiding conflict of interest, not confounding issues), we need to consider the losses associated with the omission of these linkages.

Training needs assessment typically focus on "what training is needed to do this job." We might want to consider a different perspective: "What training is needed to accomplish this organizational strategic intent." In our organization we conduct all of our needs assessments within this broader context. For example, in conducting input group sessions or individual interviews, we progress through a series of questions that tie the training needs back to the organizational strategy:

- How has your organization's market and customer base changed?
- What is your organization's vision of success in this new market place?
- What are the critical success factors for achieving this vision of success?
- What are the competencies needed to address these critical success factors?
- What is your organization's current performance on these competencies?

Tying needs assessment to organizational and market strategy has additional implications for the content and process of needs assessment. Needs assessment has typically focused on helping organizations organize and consolidate what they already know about the issue or needs. That is to say, needs assessment typically used resources internal to the organization: incumbents, managers, and organizational stakeholders. In other words, using their "conscious incompetence" (what they know they don't know). However, to address important strategic needs a needs assessment must also uncover the stakeholders "unconscious incompetence" (what they don't know they don't know).

For example, Wilson Learning recently developed a general salesperson needs assessment tool. In developing this tool, we began by examining the market and strategic issues associated with sales force development. In this examination we discovered that many saw the sales environment as taking on a new level of competitiveness and that salespeople were not prepared for this highly competitive environment nor did sales force stakeholders know what was needed. Therefore, we began studying literature and models not focused on sales but on competitiveness, for example marketing, customer satisfaction research, even military strategy. The result was an understanding of the needs of sales force development from the perspective of what competencies of a sale force needs to compete effectively in a highly competitive environment. The internal needs assessment would not have uncovered many of the needs.

Thus one approach might be to move the concept of needs assessment closer to the concept of model building. Not just collecting information on what stakeholders know they need, but helping to shape the needs assessment process to help the stakeholders understand what they don't know they need.

### **Connecting Needs Assessment To Development Solutions**

In the past, in order to create the impression of an unbiased analysis needs assessment professionals have kept needs assessment and training at arms length. There can be good reasons for that. As a member of an organization that offers both needs assessment services as well as packaged training programs clients often raise the question about the independence of the needs assessment and our offering. We have also seen less than scrupulous providers who structure needs assessments reports to purposely show the need for their training programs.

However, in retrospect, maintaining this barrier between needs assessment and specific training recommendations has, I believe, had a negative impact on our organizational clients. Without a mechanism to easily translate needs assessment findings into developmental efforts, there is a loss of information as one goes from the assessment to development. Needs assessment professionals would be well served by the creation of protocols that assist in translating needs assessment finding to curriculum outlines, or by creating models that are appropriate as both a research and training model to guide both needs assessment and training.

### **Current Theory and Practices that Need To Be Maintained**

Despite the concerns and recommendations suggested above, there are also critical elements to needs assessment that need to be maintained.

**Rigor.** As someone who has been involved in numerous program development efforts, some that did start with an effective needs assessment, and others that did not, it is clear to me that a needs assessment provides a sense of rigor and structure that is absent without the needs assessment. In development projects started without a needs assessment, inevitably the team will be asking themselves, usually somewhere near the end, "why are we teaching these people these skills?" This is usually because there wasn't a good answer at the beginning of the project. The needs assessment process requires an organization to consider each element of the issue so that inconsistencies and vagueness are reduced. The perspective that a needs assessment professional brings to a development team is different than the perspective that an instructional designer or a writer bring. Together they represent an appropriate mix of rigor, process, and creativity.

**Multi-Method, Multi-Source.** One of the most valuable aspects of current practices in needs assessment is the recognition that reliable and valid data only comes from the use of multiple methods for collecting data and by tapping multiple sources of information. By focusing recommendations on the convergence of qualitative and quantitative methodologies, organizations obtain a much more balanced view of the organizational needs. Similarly, the recognition that incumbents, managers and other stakeholders bring different perspectives strengthen every needs assessment.

### Expanding the Theoretical Framework of Needs Assessment

Needs assessment has been viewed in the literature as a problem solving tool (Lewis & Bjorkquist, 1992). And, as Leimbach pointed out earlier in this paper has typically concentrated on "what training is needed to do this job." In these perspectives, the focus of needs assessment is on problem solving, training, and jobs. In this section of the paper, I describe the changing organizational environment, argue that theory-to-practice conflicts can arise because the theoretical framework for needs assessment is insufficient, and suggest ways to expand the theory.

### Changing Organizational Environments

In the past, few managers challenged the common sense notion that before starting a new endeavor, you needed to know where you were going and to have some idea of how to get there. Traditional management and organization textbooks taught the rational management perspective which emphasized logic, order, and harmony. Managers and consultants stressed the use of "analytic techniques, step-by-step thinking, top-down control, and long-range planning" (Stacy, 1992, p. 25.) But, in his book *Managing the Unknowable*, Stacy challenges the usefulness of this common sense management perspective. He notes that today's managers operate in environments of instability, uncertainty, and crisis. In these environments, the long term future of a company is unknowable. Further, successful companies must create rather than adapt to the dynamic environment: they must innovate. Today, the relationships between all aspects of organizational performance are being exploited to improve performance. And the playing field has changed. Many managers find that the rigid, hierarchical structure of their companies has changed to include flexible work structures comprised of empowered teams that participate in decision making. In these companies, creative management structures are developing which incorporate multiple decision making processes. For example, some decisions are made autocratically by decision makers, and some decisions involve participation and mutual influence by multiple stakeholders such as employees and customers. Tension exists between these decision making processes. Those who work in such environments can find it impossible to establish where they are going or how they will get there because they are using new paths to reach uncharted destinations.

One-size fits all, step-by-step needs assessment models that focus solely on problem-solving or gathering the information to determine training needs are out of touch with the dynamic business environments. The conflict between theory and practice can be decreased by expanding the theoretical framework of needs assessment to better

address the tensions in decision making processes and the relationships between training and non-training solutions.

The theoretical framework should also be expanded to move beyond a focus on determining needs. In practice, not all needs assessments are used to identify or to determine performance needs. Some are used to clarify needs that have already been established and, at the other end of the continuum, some are used to formulate needs. A needs assessment process should be influenced by its purpose. For example, the process used to clarify already-established needs can focus on gathering information and resources. But when needs assessment is used to formulate needs, the process is more complex. It involves establishing conditions and guiding employees who have various perspectives and who work at the various levels within the organization as they synthesize information and views to define performance needs.

Theory development in the area of assessing performance needs is essential for addressing the tensions in decision making processes, the relationships between training and non-training solutions, and moving beyond a focus on determining needs will involve theory development relative to assessing performance needs. Such theory development will be useful to HRD professionals who are working in changing organizational environments and have new opportunities for leadership in the arena of individual and organizational performance.

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## TRIANGULATION IN HUMAN RESOURCE DEVELOPMENT

### A CASE STUDY IN A PUBLIC AGENCY

Karl E. Umble

#### Overview

The Division of Health Education of a large southeastern state department of public health annually holds a Professional Development Seminar (PDS) for personnel who provide preventive health education services for communities statewide. In a recent year the planners developed and administered a mixed-mode (qualitative and quantitative) survey of learner needs.

Analysis of the qualitative and quantitative data yielded an understanding of practitioners' perceived competency needs as well as their perceived barriers to effective on-the-job performance. Subsequent telephone interviews with purposefully selected respondents proved crucial in providing a context in which to interpret the quantitative data and an alternative perspective on the greatest needs. Qualitative or quantitative data alone would not have been as useful. Favorable field staff evaluation of the ensuing seminar, which dealt with organizational power and political issues as well as several more narrow competencies, provided a kind of summative confirmation of the validity of the data interpretation.

#### DESCRIPTION OF THE RESEARCH

##### Methods

The training literature distinguishes between "skill deficits", which are performance deficits due to inadequate skill, and "execution deficits", which are due to personal or organizational constraints which prevent employees from performing the skills they have. "However well an individual has learned a useful skill, that in itself by no means guarantees action.... Putting individual skill to use depends on a number of people and often on additional resources. It calls for encouragement, support, and a receptive organization" (Lynton and Pareek, 1967, p. 8-9). This important concept, which caused Lynton and Pareek to give their model the rubric "people-on-jobs-in-organizations" (p. ix), has been echoed in the distinction between the competence and performance models of continuing professional education (Nowlen, 1987).

The Division of Health Education (hereafter, Division) was well aware that performance of public health educators depends on a hospitable host organization that understands and supports preventive education and which has a progressive understanding of the role of a health educator. Public health education is often a marginalized activity in local public health departments, which in many states are still characterized by a medical treatment perspective. But the Division was also aware that a variety of other factors might be demoralizing or constraining staff. For this reason, planners decided to supplement a careful quantitative competency needs assessment with a qualitative section on the survey instrument.

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 NOTE: The writer would like to thank Professor Tom Valentine and Baiyin Yang for assisting with the data analysis:

"Triangulation is broadly defined by Denzin (1978, p. 291) as 'the combination of methodologies in the study of the same phenomenon' (Jick, 1979, p. 602). This study used two types: "within-method" triangulation, which here included three quantitative procedures to study competency, and "between-method" triangulation, which uses two or more distinct methods to study a social situation (Denzin, 1978, pp. 301-302). The combination of qualitative and quantitative methods in this study is an example of the latter. It took three forms:

1. Use of qualitative understanding and brief qualitative research to "ground" the competency list in field practice. Here, qualitative research grounded the meaning of or "within" the numbers, and defined what numbers staff obtained.
2. Use of qualitative and quantitative questions on the survey instrument and analysis of these data for a holistic understanding of current problems of practice. Here, and for the telephone interviews described below, qualitative research also helped the researchers understand the meaning "within" the numbers, but it also provided-helped provide the meaning "beside" and "behind" the numbers. That is, the qualitative data led to an understanding of the holistic context of practice, which was only partially reflected in the numbers.
3. Use of follow-up telephone interviews with selected survey respondents to clarify the nature of their needs and ideas for training.

#### Quantitative Methods and Analysis

The Division developed a list of 40 competencies expected of public health educators for the quantitative section of the instrument. This list was developed from published competency lists for health educators (USDHHS, 1980; Simmons, 1975), interviews with selected Division and field staff, planner knowledge on practitioner needs, and recent developments in the literature. It will be noted that this represents a kind of qualitative grounding of the quantitative instrument. The purpose of this recommended procedure is to ground quantitative methods locally by starting with qualitative methods which generate questions to ask and variables to study. "Field methods can confirm survey data as well as provide a rationale for survey design. Field methods can serve as a background to a survey by providing familiarity with the setting being surveyed, by developing rapport with those being surveyed, and by performing exploratory work that is necessary for pretesting a survey" (Ianni and Orr, 1979, p. 93; Sieber, 1973; Reichardt and Cook, 1979).

Respondents were asked to rank forty practice competencies on two Likert scales, one for "This is important to my job", with 1 being "not important" and 5 being "very important", and another for "This is something I need training in", with 1 being "low need" and 5 being "high need". Mean scores were computed for each item for each scale.

The planners also wanted to combine in a single index the "importance-to-job" and "training-need" scales. Thus, an "importance-need index" for each item was computed by finding the average product of the "importance-to-job" rating and the "training-need" rating and dividing it by 25 (5x5), which was the maximum number of points each item could have scored for each respondent. The formula for the mean importance-need index for each item was:

$$\text{Mean importance-need index} = \frac{\text{Mean (Importance rating} \times \text{need rating)}}{25}$$

In the survey instrument the items were arranged roughly according to sets of competencies. A health educator and an adult educator subsequently sorted the competencies into six categories, including program development, public information, teaching/counseling, evaluation and assessment, community relations, and administrative and interpersonal skills. Mean "importance-to-job" and "training-need" ratings for each competency category were computed, along with mean "importance-need" indexes for

each category. This use of multiple scales to measure the same unit represents an example of "within-method" triangulation.

## Results

Thirty-eight health educators and information officers received the survey. Twenty-five surveys were returned for a return rate of 66%.

Table 1 presents these competency categories rank-ordered according to "importance to job". The "mean item mean" for evaluation and assessment, for example, is the average "importance-to-job" rating for all competencies which fell under that category. For "importance-to-job", the categories in rank order from most to least important include administrative and interpersonal skills (3.96), program development (3.93), evaluation and assessment (3.87), community relations (3.83), teaching/counseling (3.78), and public information (3.70).

Table 2 presents the competency categories rank-ordered according to "training need".

In this table, the mean item means are the average ratings for "training need" for all competencies which fell under that category. For "training need", the categories in rank order from most to least important include evaluation and assessment (3.29), administrative and interpersonal skills (3.17), program development (3.14), instructional delivery skills (3.02), community relations (2.93), and public information (2.89).

Table 3 presents the "mean importance-need index" for each competency category in rank order from most important to least important need. This index combines the two ratings into a composite rating which indicates which competency areas have the highest combined "importance-to-job" and "training-need" ratings. Using this index, evaluation and assessment are indicated as the highest in "importance-need" (58), followed by administrative and interpersonal skills (54), program development (52), teaching/counseling (50), community relations (49), and public information (45).

Table 4 in Appendix A presents breakout data on each of the forty competencies within the six general competency categories. These tables include the mean "importance-to-job" rating for each competency, and the rank of each competency relative to others on the "importance-to-job" scale. They also contain the mean "training-need" rating for each competency, and the rank of each competency relative to others on the "training-need" scale. Finally, they contain the mean importance-need index for each skill.

**Table 1. "Training-need" categories of competencies for community health educators, rank ordered (N = 25)**

Rank	Category	Mean Item Mean*
1	Evaluation and Assessment	3.29
2	Administrative and Interpersonal Skills	3.17
3	Program Development	3.14
4	Instructional Delivery Skills	3.02
5	Community Relations	2.93
6	Public Information	2.89

\* Based on items using a five-point rating scale, with 1 = low need and 5 = high need for training.

**Table 2 "Importance-to-Job" categories of competencies for community health educators rank ordered (N = 25)**

Rank	Category	Mean Item Mean*
1	Administrative and Interpersonal Skills	3.96
2	Program Development	3.93
3	Evaluation and Assessment	3.87
4	Community Relations	3.83
5	Teaching/Counseling	3.78
6	Public Information	3.7

\* Based on items using a 5-point rating scale, with 1 = not important and 5 = very important.

**Table 3 Importance-Need Indices for categories of competencies for community health educators, rank ordered (N = 25)**

Rank	Category	Mean Importance-Need Index*
1	Evaluation and Assessment	58
2	Administration and Interpersonal Skills	54
3	Program Development	52
4	Teaching/Counseling	50
5	Community Relations	49
6	Public Information	45

\* Index derived by multiplying "importance-to-job" ranking by "training-need" ranking and dividing by 25, the maximum number of points per item.

### Qualitative Data and Interpretation

To encourage completion, the qualitative section included only three questions:

1. Please describe some of the most significant challenges to your on-the-job effectiveness. (May be personal, organizational and/or skill needs.)
2. How have you been able to apply the information you received at the [last] PDS?
3. Please give any other specific suggestion you have for the PDS.

Two of the three open-ended questions provided useful qualitative data. The first, "Please describe some of the most significant challenges to your on-the-job effectiveness. (May be personal, organizational, and/or skill needs)" deliberately prompted respondents to think broadly about issues beyond competency needs and to consider personal and organizational issues consonant with the performance model of Nowlen (1987). The third, "Please give any other specific suggestions you have for the PDS" elicited several suggestions which complemented the data from the first question. Besides yielding very useful data on their own accord, the qualitative data on the whole showed some convergence with the quantitative data, providing a useful context of meaning through which to interpret some of the strongest reported competency training needs.

Nearly all of the twenty-five respondents reported organizational issues to be their most significant challenges. Several reported that the staff, including the health director, do not understand health education's "role" and nature. As a result, health education and health educators are not sufficiently "integrated" into and coordinated with the work of the health department staff. Several responses to the challenges question were as follows:

"Inadequate understanding and integration of health education in the health department."

- "Figuring out what my job is, finding way to coordinate health education programs with rest of the health department."
- "Staff perceptions of health education as providing direct patient contact; establish my role."
- "Conveying to coworkers the importance of and need for health education."
- "Lack of Health Education Guidelines/Standards statewide - too many definitions and understandings."
- "Getting staff more involved in health education, they want health educator to do all the work, like programs."
- "Functioning under nurse manager - desperate organizational change need."

The last of the above was included under role delineation and coordination because when health educators are supervised by nurses there is often a paradigm clash. While there are many exceptions, some nurses maintain a clinical perception of health education's role, while many health educators have a broad conception of their role as promoting health well beyond the walls of the clinic. Being confined to patient education is frustrating for some health educators who have been schooled in broadly conceived community organization for planned health-related change.

Besides not being understood or integrated properly into the agency, health educators felt unsupported. Six respondents indicated this difficulty with such comments as these:

- "Lack of support and information required to do function well."
- "Lack of support for program activities due to budgetary/staffing constraints".
- "The need to be proficient at so many skills on 20 hours/week; unable to concentrate efforts in one direction."
- "So many staff, patient, community needs and no assistance for health education - not even a secretary."

It is not surprising therefore to find teamwork and staff relationship concerns to be a significant part of the data. Four respondents mentioned such concerns as:

- "Communicating and listening with staff."
- "Developing interpersonal relationships with field staff in order to make them more comfortable with me and vice versa."

It is also not surprising to find personal stress and time management to be problems in these positions. Responses related to these included:

- "Too much to do."
- "Tracking diverse numbers of projects related to job. Prioritization."
- "Dealing with professional burnout."

Only ten respondents answered the third open-ended question regarding "other suggestions for the PDS", but their words reinforced this analysis. These responses asked specifically for organizational change strategies to foster stronger support for health education.

- "Develop health education as a discipline."
- "Educate the local/regional directors on appropriate use of health education and information officers."
- "Please address effecting change in organizational structure, within health district."
- "Foster stronger support."
- "Do in-house inventory of who we are, what we are, where we're going, and skills inventory as a statewide team."

Essentially, lack of clear role and marginalization appear to be resulting in fragmented, diverse, and sometimes inappropriate responsibilities. These in turn are related to relationship problems, frustration and burnout.

### Triangulation

Again, methodological triangulation refers to the use of multiple methods in tandem in order to gain a rich or "binocular" understanding of a social situation (Mathison, 1988; Reichardt and Cook, 1979; Denzin, 1978). Triangulation provides "more and better evidence from which researchers can construct meaningful propositions about the social world" (Mathison, 1988, p. 15).

According to Mathison (1988), methodological triangulation may produce data that are convergent, inconsistent, or contradictory. Convergent data will harmonize around a particular interpretation, while inconsistent data will agree only in part. Contradictory data will sometimes be obtained. Whatever the case, triangulation means finding the best explanation for the data, using the researcher's "knowledge gleaned from the immediate data, the project/program context, and understandings of the larger social world" (p. 16). Mathison advocates making all perspectives used in interpreting the data open to public view, so that their logic and plausibility can be discussed using such criteria as data quality, plausibility, coherence, accommodation of counter-factual evidence, and perhaps predictive ability" (p. 17).

There is some convergence between the quantitative and qualitative data. In addition, the qualitative data provide a holistic perspective which supplements and helps explain the quantitative data and the entire situation. According to Jick, such "holistic (or contextual) description" represents a more complex form of triangulation than looking for convergence (1979, p. 603).

A large degree of convergence can be seen between several of the top-ranked competencies and the qualitative chorus on organizational change needs. For example, "legislative know-how" had a rank of 4 on the composite index, and ranked 13 on "importance-to-job" and 1 on "training need". "Gaining organizational support" had a rank of 5 on the index, with a rank of 3 on "importance" and 5 on "training need". "Writing grant proposals" ranked 6 on the index, reflecting the expressed need for more support, while "time management" ranked 7, in concert with the qualitatively discovered need for more time to juggle many divergent tasks.

Somewhat surprisingly, "understanding and dealing with professional burnout" and "stress management" ranked 14 and 16, respectively on the index. (Due to the incidence of many ties in the index rankings, the lowest item was ranked 22.) This is somewhat explained by the fact that burnout and stress were ranked 10 and 11, respectively, on "importance-to-job", but only 15 and 19, respectively, on "training-need", perhaps due to staff familiarity with the subject.

Convergence is also noted in the high rank of the category "administrative and interpersonal skills" in the "importance-to-job" ranking (rank = 1) and "training-need" ranking (rank = 2), among the six major competency categories. The prominence of the overall category "evaluation and assessment" in the "training need" rankings is not immediately explainable in light of the qualitative data, but it is not contradictory. This may be an example of what Mathison calls "inconsistent data". Two explanations can be offered. First, program evaluation is a somewhat difficult skill that many health educators have had little formal training in. In conjunction with that fact, using data for program justification and evaluation is a growing thrust, with federal and state authorities setting great store by behavioral risk factor surveys in order to convince decision-makers of the need for prevention programming. A related explanation may be that health educators perceive program evaluation to be useful in promoting organizational recognition. These are only conjecture, however, and follow-up telephone conversations with practitioners dealt mostly with organizational support issues.

The follow-up telephone calls were made to several health educators who had marked organizational change and support quite highly and made strong statements about organizational barriers in the qualitative section of the survey. These conversations probed their understanding of state and local government issues related to health department budgetary processes as well as health policy issues such as tobacco-related legislation. These educators suggested specific topics for study under organizational change and legislative know-how, and even suggested knowledgeable speakers who were successfully recruited to speak at the seminar.

As a result, a public health scholar known for organizational change gave a lengthy workshop. A city councilwoman and a county supervisor spoke on "Using local

government to your advantage", while grant writing and program evaluation workshops were also held. A seminar on role clarification was organized by a senior staff member. The effort to make the seminar relevant to practitioner needs was rewarded by excellent staff evaluations of the ensuing seminar. Several commented that it was the best conference or seminar they had ever attended, while written evaluations of the sessions and the workshop were very positive, noting their great relevance and value. Participants also indicated a desire to learn more about these issues in ensuing seminars.

### Summary

Nowlen's performance model (1987) and Lynton and Pareek's "people-on-jobs-in-organizations" understanding of training (1967) emphasize the role of organizational context in performance. On a more foundational level, sociologist Gary Alan Fine has described how human behavior is sedimented within structures which present constraints and external realities which limit conduct options (1991). These conceptions found confirmation in the present study, in which practitioners' responses showed that narrowly conceived skill competency is an inadequate foundation for performance. Like all other human action, educational practice is sedimented within layers of tradition institutionalized in policies and procedures, time and space limitations, institutional linkages, physical limits of the environment, and the way humans perceive, reify and interact with organizations (Fine, 1991).

This study represents an example of the productive use of methodological triangulation by public agency staff. Use of the qualitative or the quantitative data alone would not have been as useful. In fact, the quantitative data depended on brief but effective qualitative work in the development of the competency list. Once the data were in, they were analyzed for contradictions, inconsistencies, or convergence. Finally, the survey results were supplemented with additional interviews to clarify the meaning of both quantitative and qualitative data. In all of these ways, triangulation enabled the staff to develop a seminar which better met the needs of the participants, many of which continue to be addressed through both training and non training strategies.

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## APPENDIX A

Table 4 Community health education competencies: Mean "importance-to job" rating, mean "training-need" rating, mean importance-need index, and ranks, for community health educators

## PROGRAM DEVELOPMENT

Competency	Importance-to Job Mean		Training-Need Mean		Mean Importance-Need Index#	
	Rating*	Rank	Rating**	Rank	Rank	Rank
Marketing health education programs	4.24	8	3.60	4	65	4
Program planning skills	4.44	3	2.88	17	52	11
Developing instructional materials	3.48	21	3.40	7	50	12
Developing effective training programs	3.76	15	2.88	17	50	12
Designing curricula	3.72	16	2.92	16	45	17
<b>PUBLIC INFORMATION</b>						
Writing to communicate	4.92	1	3.24	10	57	9
Writing/prod. brochures	3.60	19	3.00	14	49	13
How to get news covrg.	3.20	25	3.00	14	45	17
Producing annual rpts.	3.48	21	3.16	11	44	18
Writing for newsletters	3.76	15	2.72	20	43	19
Designing newsletters	3.48	21	2.60	21	40	20
Writing news releases	3.44	15	2.52	22	38	21
<b>TEACHING/COUNSELING</b>						
Promoting behavior changes that last	4.25	7	3.89	1	70	2
Using mass media	3.92	12	3.44	6	59	8
Group process skills	3.52	20	2.80	19	46	16
Teaching groups	4.04	10	2.48	23	40	20
Counseling skills	3.16	26	2.48	23	34	22
<b>EVALUATION AND ASSESSMENT</b>						
Using quant. and qual. evaluation methods	4.12	9	3.80	2	73	1
Designing useful program evaluations	4.40	4	3.76	3	68	3
Assessing training needs	3.68	17	3.04	13	57	9
Using health status and behavioral data	3.24	24	3.36	8	55	10
Patient education needs assessme	3.84	14	3.16	11	52	11
How to assess commun. health needs	4.36	5	2.92	16	52	11
Evaluating the impact of training	3.48	21	3.00	14	47	15

Competency	Importance-to Job Mean Rating*	Rank	Training-Need Mean Rating**	Rank	Mean Impor- tance-Need Index#	Rank
<b>COMMUNITY RELATIONS</b>						
Gaining organizational support for health ed.	4.44	3	3.52	5	61	5
Developing and using coalitions	3.52	20	3.00	14	50	12
Community organization skills	3.88	13	2.84	18	48	14
Planning w/ people who are culturally different from you	3.68	17	2.96	15	47	15
Identifying community leadership	3.64	18	2.32	24	40	20
<b>ADMINISTRATIVE AND INTERPERSONAL SKILLS</b>						
Legislative know-how	3.88	13	3.89	1	65	4
Writing grant proposals	4.32	6	3.40	7	60	6
Time management	4.32	6	3.24	10	59	7
Communicating and listen	4.56	2	3.12	12	57	9
Budgeting	3.48	21	2.88	17	57	9
Promoting long-term program maintenance within organizations	3.32	23	3.32	9	49	13
Understanding and dealing with prof. burnout	4.04	10	2.96	15	48	14
Managing stress	4.00	11	2.80	19	46	16
Working with an advisory committee	3.72	16	2.96	15	46	16

\* Based on items using a 5-point rating scale, with 1 = not important and 5 = very important

\*\* Based on items using a 5-point rating scale, with 1 = low need and 5 = high need

# Index derived by multiplying training need rating by importance-to-job rating and by 25, the maximum score for any item

dividing

## Design and Development of an Assessment of Readiness for Training: The START\*

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Participating in and learning from training experiences and programs can be a gateway to an individual's professional future. Tremendous amounts of money are spent by American businesses and industries for training new employees, upgrading and enhancing the knowledge and skills of current employees, providing opportunities for promotions and the development of managerial skills, introducing employees to new technologies and job tasks, and providing opportunities for personal growth and development. However, each person plays a major role in determining how much they will benefit from these opportunities.

The START (Strategic Assessment of Readiness for Training) (Weinstein & Palmer, 1994a) assessment instrument provides information about trainees' (or potential trainees) personal strengths and possible weaknesses in 8 different areas related to their readiness to benefit from training: Anxiety, Attitude Toward Training, Concentration, Knowledge Acquisition, Identifying Important Information, Motivation, Monitoring Learning, and Time Management. The START is a self-report diagnostic assessment. It has 56 items, uses a Likert-type response scale, and can be completed in approximately 12-18 minutes. The START was derived from a model of strategic learning in the workplace and its psychometric properties have been validated through factor analysis and other techniques. In addition to giving trainees the opportunity to gain important insights into themselves, the START also provides a list of suggestions for improving skills, attitudes, and motivation for getting the most out of training experiences. Finally, the START can be used by trainers to help adapt their instruction to the individual strengths and needs of the participants. This can provide a cost-effective method for enhancing the effectiveness of instruction and improving transfer back to the workplace.

### **What does it mean to be a strategic learner?**

Strategic learners know how to integrate and orchestrate skill, will (motivation), and self-regulation components of strategic learning to help meet their learning and performance goals. (Weinstein & Van Mater Stone, 1993; Zimmerman, 1990). First, strategic learners have a variety of different types of knowledge that can be classified into five basic categories: knowledge about themselves as learners; knowledge about different types of training and work tasks; knowledge about strategies and tactics for acquiring, integrating, and applying new learning; prior content knowledge and skills; and knowledge of both present and future contexts in which the knowledge and skills could be useful. However, these different types of knowledge are not sufficient for expertise. Strategic learners must also know how to use these various types of knowledge to meet their learning goals and how to monitor their own progress so they can adjust what they are doing if a problem occurs. They need to know how to use self-assessment or self-testing to determine if they are or are not meeting their learning goals.

\*(Please note that portions of this paper were adapted or excerpted from the START User's Manual, with the permission of the publishers, H&H Publishing, Inc.)

Strategic learners must also want to learn. Effective learning requires the integration of skill and will components. Motivation and positive affect for learning derive from many components and interact with and result from many factors. These factors include things such as goal setting, goal analysis and goal using; efficacy expectations; outcome attributions; interest; valuing; instrumentality, and utility value, particularly for future job performance.

Finally, strategic learners have the metacognitive awareness and control strategies to orchestrate and manage their own learning. This involves a number of interacting activities.

Each activity interacts with and dynamically impacts all other components. These activities include: creating a plan to reach a goal; selecting the specific strategies or methods to use to achieve a goal; implementing the methods selected to carry out the plan; monitoring progress on both a formative and a summative basis; modifying the plan, the methods, or even the original goal, if necessary; and evaluating what was done to decide if this would be a good way to go about meeting similar goals in the future. Evaluating this whole process helps students to build up a repertoire of strategies that can be called upon in the future when a similar situation arises.

This model of strategic learning was used as the conceptual basis for the development of the START. The development activities were also guided by the following practical goals.

**The START is designed to:**

- (1) provide a diagnostic assessment of adults' strategic learning strengths and weaknesses in a work setting;
- (2) provide baseline data about adults' readiness to profit from training or other learning experiences early in a training needs assessment process;
- (3) increase individuals' awareness of their strategic learning strengths and weaknesses;
- (4) provide individuals taking the measure with valuable feedback about each scale, what it measures, their individual scores, and suggestions for ways they can improve their strategic learning knowledge, attitudes, and skills;
- (5) help trainers understand the individual and group learning strengths and weaknesses of participants;
- (6) provide concrete suggestions to trainers for ways to design, modify, or enhance instruction to adapt it to the strategic learning strengths and weaknesses of the participants;
- (7) help trainers design, develop, and implement effective and efficient training for a targeted population;
- (8) increase the application of ideas, knowledge, attitudes, and skills presented during training into the work setting.

**The START Scales**

A completed START has scores for 8 separate scales (7 items per scale), each of which relates to an important aspect of readiness to profit from training experiences. Descriptive statistics and psychometric properties of each of the scales can be found in the START User's Manual. The 8 START scales are: Anxiety, Attitude, Motivation, Concentration, Identifying Important Information, Knowledge Acquisition Strategies, Monitoring Learning, and Time Management.

The **Anxiety Scale (ANX)** measures the degree of confidence or anxiety someone experiences about performing well in learning situations. It is reverse-scored so the higher a score, the lower the reported anxiety.

Do participants worry so much about learning new things that it is difficult for discouraged about being able to use the new information or skills in a work setting?

**The Attitude Scale (ATT)** measures general attitudes toward training and the degree to which it is valued.

How important is professional and personal development to the participant? How clear are participants about their job goals and the role training can play in helping to meet them?

**The Motivation Scale (MOT)** measures willingness to participate in training and complete the tasks and work involved.

Do participants see how successful completion of training relates to personal and work goals? Do participants accept much of the responsibility for their own learning and performance?

**The Concentration Scale (CON)** measures general ability to concentrate, focusing and maintaining attention on training-related activities and tasks.

Do participants focus their attention on what is going on in a training session despite potential distractions, such as other work responsibilities? Do participants maintain their attention over time?

**The Identifying Important Information Scale (III)** measures how well participants select important information from training to learn and transfer to the work setting.

Do participants identify the important material for in-depth study? Do participants select out important ideas and knowledge from unimportant material or supporting instructional material?

**The Knowledge Acquisition Strategies Scale (KAQ)** measures methods for acquiring new knowledge and skills in a manner that will facilitate their retention and later use in the work setting.

Do participants try to find relationships between what they already know and what they are learning during training? Do participants think about how they will use what they are learning during training in their job setting?

**The Monitoring Learning Scale (MON)** measures the degree to which participants keep track of their learning and whether or not they are meeting their performance goals.

Do they stop periodically and review what has been presented? Do they check to see if they understand what is being discussed by the trainer?

**The Time Management Scale (TMT)** measures participants' ability to create and use schedules effectively in a training setting.

Are they well organized? Do they anticipate training-related scheduling problems?

### **Administration and Scoring**

The START takes approximately 15 minutes to complete. It uses a self-report format and does not require any special administration procedures. Specialized training is recommended but not required to administer (or complete) the assessment.

The START yields 8 Total Scale Scores, one for each of the 8 scales. No total START score is computed since this is a diagnostic/prescriptive measure. Each scale has been designed to stand on its own to give multiple sources of information about each participant and to provide guidelines for improvement for both the participant and trainer. These 8 Total Scale Scores are compared to criteria provided graphically as part of the instrument. Using these criteria, participants can see immediately whether their scores are in the high, middle, or low range for each scale.

Descriptive information and prescriptions for personal improvement are provided on the instrument for each scale. Additional suggestions to trainers for ways to design, modify, or enhance instruction to adapt it to the strategic learning strengths and weaknesses of the participants are provided in a section of the User's Manual (Weinstein & Palmer, 1994b).

### **The Development And Psychometric Properties Of The Start**

The developmental work that led to the creation of the START began 5 years ago as part of the Cognitive Learning Strategies Project at the University of Texas at Austin. A number of major corporations had contacted the project because of the publication in 1987 of the Learning and Study Strategies Inventory (LASSI) (Weinstein, Palmer, & Schulte, 1977). This self-report inventory of college students' strategic learning was the

first diagnostic/prescriptive instrument available in the area. (The LASSI is currently used in more than 40 percent of the colleges and universities in the United States and has been translated into more than 20 other languages.) The representatives of these corporations wanted to know if a similar instrument existed for business, industrial, or public-sector organizations. The answer was "no," but the START Project was created to help address this need.

In response to increasing demands from human resource development specialists and trainers from both the public and private sector, more and more work settings are becoming interested in the learning strengths and weaknesses of their personnel and what can be done to use this information to improve the effectiveness of training and the application of what is learned to the work setting. It is becoming increasingly clear that organizational competitiveness is predicated on the knowledge and skills of the people making up the organization. Tremendous amounts of money and other resources are directed to providing training for employees at all levels but not all employees know how or want to take advantage of this training. The developmental work that went into creating the START was designed to generate an assessment instrument that could identify adults' learning strengths and weaknesses while also offering guidance for prescriptions to remediate their weaknesses and enhance strengths, or to modify and adapt instruction.

#### **Initial Development Activities**

The initial development activities focused on data gathering. The research and conceptual literatures in educational and cognitive psychology, adult education, and learning in organizations were surveyed. This data was used to modify a general model of strategic learning to identify potential scales for an adult measure to be used in work settings. The tentative list of scales was submitted for review by more than 30 learning, adult education, and human resource development specialists. Using the results of this survey and analysis, 9 tentative scales were developed. (The ninth scale, Self Concept as a Trainee subsequently dropped out when it was found not to be psychometrically sound because of high correlations with several of the other scales.)

An initial item set of more than 200 items was developed by a team of learning specialists and psychometricians. These items were subjected to critical review by more than 40 experts (approximately half were from the original group that assisted in scale development). These items were extensively pilot tested, analyzed, and revised or eliminated to produce a working pool of 126 items. This revised pool was then pilot tested and analyzed, resulting in a final pool of 90 items.

#### **Field Testing**

The 90-item START underwent several field trials. A group of approximately 30 experts (10 who had not seen the START before) reviewed the START and several of them administered it to participants in various training programs. It was also field tested with trainees in a variety of training settings: a professional organization, a continuing education program, a manufacturing plant, and a technical services division of a major corporation. The results were analyzed and the administrators interviewed about administration and utility value of the instrument. The uniformly high evaluations led us into the third and final phase of development.

#### **Final Scale Development and Psychometric Data**

The 90-item START was examined for its useability characteristics as well as selected psychometric properties of the scales. Part of the goal was to maintain the excellent scale statistics while trying to reduce the number of items and, therefore, the time to complete the measure. An optimum balance was achieved with 7 items per scale, for a total of 56 items.

Final scale development was based on a sample of 226 persons enrolled in training programs at several different corporations. Item statistics for each scale are included in the User's Manual. The mean, standard deviation and Coefficient Alpha for each Total Scale Score are shown in Table 1. The Coefficient Alpha for each scale is high enough to say that each construct on the START is measured reliably.

The relationships among the scales were analyzed to demonstrate that each scale measures a unique construct. Table 2 show the intercorrelations among the scales. The correlations are low to moderate and generally indicate independence among the concepts. As further analysis, the scale values were factor analyzed to determine the number of independent underlying dimensions represented by the START scales. The factor analysis was a principal components analysis and the factors were rotated using Varimax rotation. The rotated factor loadings are shown in Table 3. It is clear from this table that each scale loads on one and only one dimension. The percent of total variance accounted for by each scale is shown in Table 4.

The conceptual base underlying the START, combined with these strong psychometric data, support its use as both a research and applied assessment measure for specialists in human resource development.

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Table 1  
Scale Statistics for the Final Version of Each Scale

Scale Name	Mean	Standard Deviation	Coefficient Alpha
Anxiety	25.02	5.81	.87
Attitude	29.18	3.94	.71
Motivation	26.18	3.93	.65
Concentration	24.84	4.74	.83
Identifying Important Information	26.64	3.94	.75
Knowledge Acquisition	26.44	4.26	.78
Monitoring	22.28	4.58	.78
Time Management	22.04	4.65	.76

Table 2  
Scale Intercorrelations

	Anx	Attit	Motiv.	Conc	Ident Impt Info	Knowl Acq	Mon
Anxiety	1.000						
Attitude	.294	1.000					
Motivation	.294	.61	1.000				
Concentration	.367	.370	.509	1.000			
Identifying Important Information	.549	.483	.349	.399	1.000		
Knowledge Acquisition	.244	.393	.280	.244	.555	1.000	
Monitoring	.048	.252	.336	.368	.261	.452	1.000
Time Management	.275	.264	.524	.532	.308	.244	.429

Table 3  
Rotated Factor Loadings

	1	2	3	4	5	6	7	8
Anxiety	0.099	0.946	-0.022	0.104	0.140	0.082	0.099	0.218
Attitude	0.074	0.110	0.084	0.931	0.131	0.159	0.190	0.175
Motivation	0.230	0.111	0.128	0.206	0.204	0.090	0.904	0.098
Concentration	0.231	0.161	0.155	0.142	0.902	0.063	0.266	0.131
Identifying Important Information	0.100	0.292	0.086	0.216	0.147	0.279	0.109	0.860
Knowledge Acquisition	0.069	0.089	0.217	0.161	0.058	0.924	0.085	0.225
Monitoring	0.181	-0.022	0.938	0.082	0.140	0.207	0.117	0.070
Time Management	0.913	0.109	0.194	0.076	0.222	0.071	0.223	0.087

Table 4  
Percent of Variance Accounted for by each Factor

Scale Name	Percent Variance
Anxiety	12.53%
Attitude	13.14%
Motivation	12.74%
Concentration	12.81%
Identifying Important Information	12.32%
Knowledge Acquisition	12.80%
Monitoring	12.34%
Time Management	11.34%