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**A TEST OF A RAPID DEVELOPER MODEL: WORKPLACE FACTORS
ASSOCIATED WITH LEARNING AND DEVELOPMENT**

by

James A. Alexander

**A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Doctor of Education
Department of Educational Leadership**

**Western Michigan University
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A TEST OF A RAPID DEVELOPER MODEL: WORKPLACE FACTORS ASSOCIATED WITH LEARNING AND DEVELOPMENT

James A. Alexander, Ed.D.

Western Michigan University, 1997

The speed at which individuals and organizations learn and develop is a vital contributor to organizational change and organizational effectiveness. This study postulated the notion of "rapid developers", those persons who learn and acquire job competence more quickly than their peers. The purpose of this study was to identify, define, and differentiate the factors associated with "rapid development."

The author constructed a rapid developer model based upon the review of the disciplines of training, performance technology, total quality, organization learning, and organization culture. The model identified and defined the contextual factors that could be expected, based on an understanding of current theory, research, and best practices, to be associated with rapid development. The author then conducted an empirical test to determine the extent to which the rapid developer model was supported in actual experience among employees in three organizations.

Managers in each organization were asked to identify, using a provided selection process, the most rapid developers among their direct reports. Employees not among those chosen by managers were randomly sampled to create a comparison group. Extensive interviews were conducted to assess the workplace factors

encountered by these employees and their perceptions of key performance variables.

The main hypothesis of the study was that the employees identified as "rapid developers" would report perceived performance variables and a workplace performance environment different from the comparison group. Further, the differences reported would align with the factors and characteristics predicted by the Rapid Developer Model.

The major finding was that employees identified by managers as rapid developers did not differ as predicted from the comparison group. When employees themselves identified other employees as rapid developers, however, differences as predicted by the Rapid Developer Model were consistently discovered.

The author concluded that many of the Rapid Developer Model factors were supported in the experience of employees, but that managers in the organizations studied were not able to accurately discern employee learning and development characteristics. The findings of the study also help provide rationale for why major organizational change is so difficult, and why the return on training and other learning interventions is typically so marginal.

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TABLE OF CONTENTS

LIST OF TABLES.....viii

LIST OF FIGURESix

CHAPTER

I. INTRODUCTION.....1

Importance of the Study.....1

Purpose of the Study.....4

Research Questions.....5

Research Question 1: Is the Rapid Developer Model Supported?.....5

**Research Question 2: Which Work Environment Factors Are
Most Associated With Rapid Development?6**

**Research Question 3: Can the Model Be Used to Predict
Rapid Development?6**

Overview of the Study Design.....7

Scope of the Study.....10

Conceptual Definitions.....10

Organization of the Dissertation.....12

II. REVIEW OF RELATED LITERATURE14

Disciplines14

Training14

Table of Contents—Continued

CHAPTER

Performance Technology.....	19
Total Quality.....	23
Organizational Learning	25
Organization Culture	28
Rapid Developer Guidelines	29
Situational Factors	32
Cultural Factors	36
III. METHODS AND PROCEDURES	42
Design Overview.....	42
Participants	44
Implementation Procedures	46
Confirm Expectations.....	47
Gather Background and Contextual Information.....	47
Select Rapid Developers.....	47
Select Comparison Group	49
Notify Interviewer.....	50
Notify Participants.....	50
Conduct Interviews	50
Transcribe Audiotapes.....	52

Table of Contents—Continued

CHAPTER	
	Coding and Scoring Data52
	Making Predictions54
	Data Analysis56
	Provide Feedback.....59
	Sampling Method.....59
	Instrumentation.....60
	Management Question Guide61
	Rapid Developer Guide61
	Participant e-mail62
	Interview Question Guide.....62
	Research Team Members63
	Quality Control65
	Reliability.....67
	Internal Validity69
	External Validity71
	Utilization71
IV. RESULTS.....	74
	Review of the Analysis Process74
	Factor-by-Factor Findings.....75

Table of Contents—Continued

CHAPTER

Fitting Performance Specifications.....	75
Adequate Resources.....	81
Effective Procedures/Workflow.....	84
Appropriate Consequences.....	86
Quality Feedback.....	90
Competence.....	93
Continuous Learning.....	96
Candor.....	97
Community.....	100
Involvement.....	102
Reality Check.....	103
Comments.....	106
Distribution of the Work Environment Factors.....	107
Hypotheses Testing.....	107
Review of Analysis Methods for Hypotheses Testing.....	107
Hypothesis No. 1: Rapid Developers Perceive That More Environmental Factors Are Present Than Not-Rapid Developers.....	110
Hypothesis No. 2: Rapid Developers Perceive That Performance Specifications Are Fitting.....	116

Table of Contents—Continued

CHAPTER

Hypothesis No. 3: The Perception of the New Performance Specifications of Rapid Developers Align With Management's Performance Specifications	117
Additional Tests.....	117
V. DISCUSSION.....	124
Overview of Significant Findings.....	124
Consideration in Light of Existing Research, Theory, and Practice	126
A Supportive Work Environment Is Vital to Learning and Development.....	126
Espoused Theories-of-Action Are Different From Theories-in-Use	126
Management May Be Out of Touch.....	127
Attempts to Improve Learning and Development Should Address the Work Environment Before Addressing the Individual Learners.....	127
Implications for Current Theory and Professional Practice.....	128
An Explanation for Poor Learning and Slow Change	128
Recommendations for Further Research	130
Expand the Research Base.....	130
Triangulate Methods	130
Study the Work Environment and Learner Characteristics Simultaneously	131

Table of Contents—Continued

APPENDICES

A. Organization Profiles	132
B. Organization Letter.....	138
C. Rapid Developer Work Environment Checklist	142
D. Management Question Guide	145
E. Rapid Developer Guide: Test.....	147
F. Rapid Developer Guide: Meeting.....	149
G. Rapid Developer Guide: e-mail	152
H. Initial Interview Question Guide	155
I. Final Interview Question Guide.....	158
J. Participant e-mail.....	164
K. Interviewer	166
L. Transcriptionist Memo.....	187
M. Organization Collaborator Memo.....	189
N. Predictor Memo.....	192
O. Organization Sponsor Finding Letter.....	194
P. Charts of Results	196
Q. Research Findings Reports.....	209
BIBLIOGRAPHY	288

LIST OF TABLES

1. Scoring Discrepancies	55
2. Respondent Perceptions of the Presence of the Fitting Performance Specifications Factor	77
3. Respondent Perceptions of the Strategic Reasons Behind the Organization Changes	80
4. Respondent Perceptions of the Presence of the Adequate Resources Factor	83
5. Respondent Perceptions of the Presence of the Appropriate Consequences Factor	88
6. Respondent Perceptions of the Presence of the Quality Feedback Factor	92
7. The Agreement Between Managers and Respondents in Selecting Rapid Developers	104
8. Presence of Factors: Predicted Rapid Developers vs. Predicted Not-Rapid Developers	113
9. Manager-Selected Rapid Developers vs. Comparison Group	115
10. Respondent-Selected Rapid Developers vs. Comparison Group	120
11. Analysis of Parameter Estimates	123

LIST OF FIGURES

1. Five Disciplines Contributing to the Rapid Developer Model	15
2. Behavioral Engineering Model (Gilbert, 1978)	21
3. Factors Affecting the Human Performance System	22
4. Rapid Developer Model	31
5. Work Environment-Rapid Developer Model.....	33
6. Distribution of the Perceived Presence of Work Environment Factors by Respondent	108
7. Presence of Work Environment Factors by Factor	109
8. Predicted Rapid Developers vs. Predicted Not-Rapid Developers	111
9. Manager-Selected Rapid Developers vs. Comparison Group	114
10. Respondent-Selected Rapid Developers vs. Comparison Group	118
11. Three Organization Comparison: Perceived Presence of Work Environment Factors.....	122

CHAPTER I

INTRODUCTION

Importance of the Study

To survive and prosper in the new world order, organizations must constantly change through both continuous improvement and innovation (Drucker, 1993). New knowledge, skills, and mindsets are required to adapt and implement new strategies, to develop new products, and to meet the escalating expectations of customers.

All of this requires tremendous learning--how to collaborate, how to become more trusting and open in communications, how to deal with dependency in the new kinds of fluid hierarchical relationships, how to wield personal vs. positional power without losing the commitment of subordinates, how to design organizations with fluid boundaries, and so on (Shein, 1996, pg 235).

How quickly individuals learn and develop the "right" new knowledge, skills, and mindsets directly contributes to performance. In fact, speed may well be the critical source of competitive advantage (Stalk & Hout, 1990). In order to flourish, organizations must learn to adapt faster and faster or be weeded out in the economic evolutionary process.

Jack Welch, the highly-admired CEO of GE, is consumed with the notion of speed in all domains of GE's business. He is taking steps to ensure that all GE employees are empowered to take immediate action without having to wait

for management to approve decisions (Ulrich, Von Glinov, & Jick, 1993).

Learning is no longer a choice but a necessity and the most urgent priority is learning how to learn--and learning faster (Schein, 1993; Garvin, 1993). Ray Stata, chairman of the board and president of Analog Devices states, "I would argue that the rate at which individuals and organizations learn may be the only sustainable competitive advantage, especially in knowledge-intensive industries." (Stata, 1989, pg. 64)

Finally, a major transformation is occurring at a societal level. For years the phrase "People are our most important asset" was often just a slogan reported in annual reports and hung on lobby walls. When these words were voiced by management they produced cynicism in the employees of the organization. Now, in industry after industry, knowledge is replacing capital as the most limited (and therefore most important) resource (Drucker, 1991). Knowledge workers are becoming the dominant class of the organization. Retaining and developing this knowledge resource has become the critical business issue of business and industry.

The investment in learning and development efforts is enormous. Organizations are spending huge sums of money in attempts to develop their workers. Initiatives such as Total Quality, business process improvement, customer satisfaction, activity-based costing, etc., all profess the importance of people learning and applying new skills and knowledge, and assuming new attitudes. Conservative estimates project the cost of formal training alone (including neither the cost of travel, nor opportunity costs) in US organizations with 100 or more employees to be close

to \$60 billion per year (Training, 1996). Many of the goals of management consulting efforts are geared toward helping organizations learn and change. The management consulting field is growing at least twice as quickly as the rest of the world economy for the last decade, generating over \$11 billion in fees (Forbes, 1997).

Yet most of this money is wasted because of inefficiencies. Efforts are inefficient because little of what goes on in the classroom is transferred to the job. Furthermore, it is estimated that only about 20% of the knowledge and skills taught in formal settings are used on the job (Broad & Newstrom, 1992). The actual percentage of the money used for people development that results in long-term performance improvement may be as low as 10% (Georgenson, 1982).

To compound the problem, much of the learning attempts that are actually impacting on-the-job behavior are ineffective. These attempts are ineffective because they are not addressing the problems and opportunities that yield the greatest organizational benefit. Organizations only have so many resources, and to use them in areas that will not produce the greatest results is poor management. Learning basic communication skills or computer usage that is not directly linked to advancing the goals of the organization is not a productive use of organizational resources. As Drucker (1995) has pointed out, putting a lot of time and effort into doing something extremely well that should never have been done is the worse use of resources.

The results of the vast learning and development efforts are very limited performance improvement, waste, and lost opportunities. Addressing the development challenge is vitally important because the consequences of not doing so

are severe. Learning is too important for senior management to entrust to people and departments that do not deliver. The ramifications are predictable. Senior management will either severely cut back on the learning and development budget, eliminate the department responsible, or out-source the entire function in an effort to get results. In view of these facts, learning and development must be re-thought to address efficiency, effectiveness, and speed.

Purpose of the Study

Given that there seems to be an increasing need for employees in all kinds of organizations to learn and develop quickly, this study explores of notion of “rapid developers.” Rapid developers are, in this research, those persons who appear to learn more quickly than their peers. The rationale for the study emerges from the potential learning that could possibly be achieved if the factors that are associated with “rapid development” could be identified, defined, and differentiated.

Thus, this study first set out to construct a model of organizational factors that could be expected, based on review of related fields and disciplines, to bear on rapid development. Next, the study pursued an empirical test of the model in three organizations to determine the extent to which the rapid developer model was supported in actual experience. Rapid developers were identified, using criteria explained later in the study, then were interviewed to determine the extent to which the factors they experienced in their work environment were aligned with the factors predicted by the model.

The literature from five disciplines was reviewed focusing on information related to learning, development, and the work environment. This information was used to create the rapid developer model, which consists of nine factors. The model was then tested in a case study of three organizations undergoing major change involving three target populations of sales, service, and first-line supervision.

The findings from this study add to the body of knowledge of the importance of the work environment to learning and development. Researchers are able to replicate and extend the study. Practitioners are able to use information gleaned from this investigation as a resource to enhance the quality of learning interventions. Executives will have both a theoretical model and a practical tool in which to frame and link the importance of the work environment to organization learning and organization change.

Research Questions

Three research questions and three hypotheses were developed to test the work environment rapid developer model.

Research Question 1: Is the Rapid Developer Model Supported?

This broad but central question asks if the model is credible and can pass rational scrutiny. If the individuals selected by managers as rapid developers perceived that more of the work environment factors were present than individuals chosen randomly, then the model would be supported. This question was addressed

by Hypothesis #1: Rapid developers perceive more work environment factors are present than not-rapid developers.

If the evidence supports this hypothesis, the case could be made that the work environment plays an important role in the speed of learning and development and the Rapid Developer Model is a useful tool in helping to determine Rapid Developers. If the model were supported, two other questions would be worth considering.

Research Question 2: Which Work Environment Factors Are Most Associated With Rapid Development?

The rapid developer model consists of nine work environment factors. Some may be more important than others regarding their relationship to rapid learning and development. The purpose of this question was to try to determine relative weights among the factors.

Based upon the literature, the Fitting Performance Specifications Factor was presumed to be the most important of the nine factors since expectations have been purported to be central to both performance and to learning. If this were so, then the presence of this factor could be a good indicator for identifying rapid developers. Hypothesis #2 was developed in an attempt to address this issue: Rapid developers perceive that performance specifications are fitting.

An element of the Fitting Performance Factor, alignment between management's expectations and performer understanding of those expectations, was also thought to be essential. How could individuals learn, develop, and perform without clearly understanding the expectations of their job as viewed by their management?

Possibly the presence of this one element could be a good predictor of rapid learning and development. That line of thinking lead to Hypothesis #3: The perception of the new performance specifications of rapid developers aligns with management's performance specifications.

Research Question 3: Can the Model Be Used to Predict Rapid Development?

The predictive ability of the model was viewed from a different perspective. It was postulated that by ranking respondents from those perceiving the most total factors present down to those perceiving the least total factors present and then selecting roughly the top 1/2 would yield the rapid developers. If this group contained the same individuals as those selected by the managers as rapid developers, it would provide further support for the model and its predictive ability.

Tests were run to determine statistical significance and answer the research questions. Based upon these results, the analysis and testing were continued to discover how these research questions were answered when members of the populations under study selected the rapid developers.

Overview of the Study Design

Three organizations undergoing significant organizational change in which important learning interventions were occurring were chosen to participate in this study. Populations from which research participants were drawn were complementary with sales, service, and first-line supervision represented. Extensive background

research was conducted to understand the organization history, context of the change, issues being addressed, details of the learning intervention, and new expectations of the target population.

Special steps were put in place to minimize the negative effects of bias. Anonymity was maintained throughout the investigation with identity-sensitive tasks being done by individuals other than the researcher. The researcher did not know which respondents were assigned to which comparative group until after the researcher had conducted an analysis and made predictions based upon the research hypotheses. The researcher made these predictions public prior to learning the codings of the respondents assigned to the groups to be compared.

A detailed process was put in place by the researcher to develop a criteria for rapid development specific to each organization. With researcher guidance, managers from the three organizations learned about rapid development, nominated rapid developers and, based upon their organization's criteria, selected rapid developers through consensus. Random samples from the remaining individuals in the population were selected to act as a comparison group.

Extensive interviews of the research respondents were conducted to learn their perceptions of the work environment factors purported by the research model to impact the speed of learning and development. These interviews were recorded, transcribed, and analyzed to determine the presence or non-presence of work environment factors. With this information, the researcher used the rapid developer model to predict the individuals who were rapid developers. The predictions were sealed and

given both to the committee chair and to the organization sponsors. At this point, the researcher obtained the list of manager-selected rapid developers and randomly-selected comparison group members. Statistical tests were run to further analyze differences among the studied groups.

An initial design concern was the participating organization management's ability to identify rapid developers. As confirmed through the gathering of background information and the facilitation of the nomination of rapid developers, managers are not accustomed to thinking about learning and development behavior nor monitoring developmental behavior outcomes. Therefore, managers may not have acquired the rational evidence needed to make valid judgments about who among their reports are rapid developers. In addition, popular books on management continually portray management as being out of touch with the realities of the workplace. For these reasons a "reality check" was integrated into the study. It was postulated that the actual members of the population under study could accurately identify rapid developers based upon their first-hand experience. Research respondents nominated their own list of rapid developers and statistical tests were run to compare and contrast their results versus the research model.

The researcher developed and presented individual reports of the findings to the organization sponsor and other members of management for each participating organization. Each organization sponsor committed action steps to address the gaps presented in the reports.

Scope of the Study

Many things affect how quickly individuals learn and develop in organizations. The characteristics of the individual, the quality of the learning intervention, and the elements that make up the work environment have all been shown to impact the transfer of learning from formal setting to the job (Baldwin & Ford, 1988). All three of these elements must be considered both from the standpoint of their individual merits as well as from the effects of interaction among each other. However, studying all three of these elements simultaneously is beyond the scope of this research. Analysis of learner characteristics and evaluations of effective learning interventions have been studied extensively elsewhere and are not a part of this inquiry. The role of the work environment has been speculated to be the most important contributor to how quickly learning and development occurs. In addition, very limited research on this topic has been conducted to date. This study is limited to exploring the work environment's role in how quickly people learn and develop in organizations undergoing significant change.

Conceptual Definitions

Numerous individuals played important roles in the design and implementation of this study.

Researcher: the author of this paper and primary designer and implementer of this study.

Interviewer: the individual who conducted and recorded all of the telephone interviews of the study respondents.

Transcriptionist: the individual who listened and transcribed all of the recorded respondent interviews.

Respondent: an individual from the target population who participated in the study. Respondents were interviewed over the telephone to learn their perception of the presence of the work environment factors that affect learning and development.

Rapid Developer: an individual from the target population determined to have learned and developed to the greatest degree relative to new performance expectations from the beginning of a recent organizational change to the time of selection.

Not-Rapid Developer: Any individual from the target population not selected as being a Rapid Developer. Not-Rapid Developers made up the groups compared to the Rapid Developers.

Organization Sponsor: a senior executive from each of the participating organizations that sanctioned the study, and who provided background and contextual information, as well as confirmed that the new performance expectations of the target population identified by the researcher were correct.

Managers: The direct reports of the Organization Sponsor and the immediate supervisors of the individuals from whom the research participants were chosen. Some Managers provided background and contextual information on the organization for the Researcher. Managers nominated and selected the Rapid Developers.

Organization Collaborator: the administrative assistant of the

Organization Sponsor who supported the researcher in coordinated study activities including safeguarding the confidentiality of the participants.

Organization of the Dissertation

This dissertation comprises five chapters. The importance and purpose of the study, research questions, overview of the study design, scope of the study, and conceptual definitions are outlined in Chapter I.

Chapter II contains a review of the literature related to the topic under investigation. Information related to the work environment and learning and development was gathered from the five disciplines of Training, Performance Technology, Organization Learning, and Organization Culture. This information is used to establish a set of guidelines for accelerating learning and development and to provide a rationale for the creation of a Work Environment Rapid Developer Model. A model consisting of five situational factors and four cultural factors proposed to affect how quickly performers learn and develop is detailed.

The design of the study is presented in Chapter III. Included are descriptions of the research instruments and their development, the sampling procedure, the collection of data, the methods used to analyze the data, and the steps taken to first understand then control the quality of the research.

The results of the data analysis are presented in Chapter IV. Statistical procedures are described and the results discussed.

Chapter V contains a summary of the findings, conclusions, implications of the

study, and recommendations for further study.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to discover this supporting foundation of past knowledge from the best thinking and experience of prior researchers and practitioners and to link it to the design and implementation of this study. In this chapter five disciplines are discussed with information important to the study of learning and development relevant to the work environment highlighted. This review makes the case for the criticality of the work environment role in rapid learning and development. Next, the researcher puts forth some rapid developer guidelines based upon the literature. Then nine work environment factors proposed as being vital to rapid learning and development are presented and defined.

Disciplines

Understanding learning and development requires gleaning and integrating information from a number of fields of study. Figure 1 portrays the five disciplines most important in this research effort: Training, Performance Technology, Total Quality, Organization Learning, and Organization Culture.

Training

Training is the function that provides structured learning experiences that are

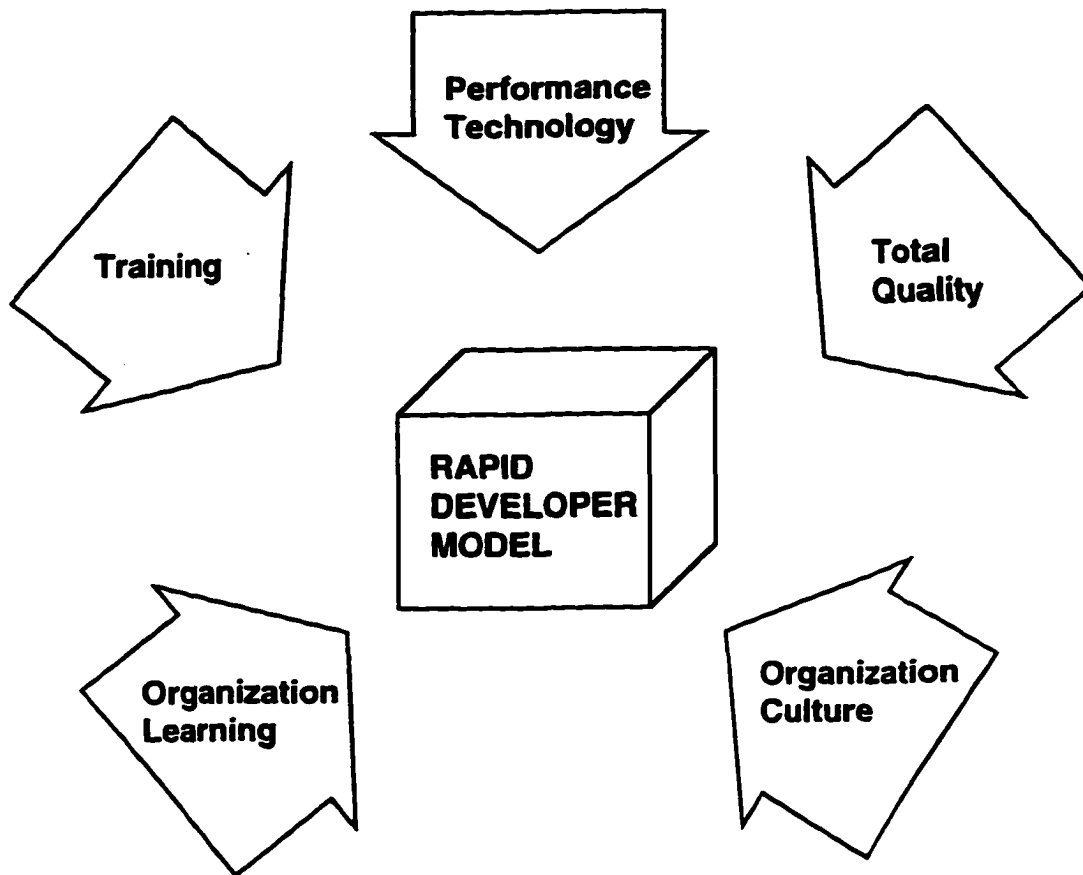


Figure 1. Five Disciplines Contributing to the Rapid Developer Model.

intended to provide the necessary knowledge and skills for people to function successfully in their current (and future) jobs and contribute to the overall success of the organization. Effective training measurably increases learning, improves job performance, and delivers worthy results. Worthy results are those that add value to the organization. Worthy results of effective training might include reduced process cycle time, increased customer satisfaction, reduced waste, etc. The more a training effort brings about worthy results important to the organization, the more effective it is. Highly effective training directly addresses the critical business issues of the

organization (Brinkerhoff & Gill, 1994).

Training effectiveness is dependent on transfer. Transfer is defined as "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). First the transfer from what is learned through the training to the job and, second, from new behaviors in the workplace to the accomplishment of worthy objectives.

Transfer of Training

Volumes have been written on trainee characteristics and training design. Until recently the research on the impact of the work environment on the transfer of training has been sparse. Less than ten years ago, only seven studies had looked at environmental factors and training transfer (Baldwin & Ford, 1988). Yet research is starting to show the importance of work environmental factors on training transfer. In their review of the literature, Baldwin and Ford (1988) developed a framework for the transfer of training in which the three vital training inputs are: trainee characteristics, training design, and the training environment. All three must be in place for transfer to occur.

Baldwin and Ford (1988) noted in their review that supervisory support (e.g., reinforcement, modeling of trained behaviors, and goal-setting activities) is a key work environment factor that can affect the training process. Later researcher investigations confirm the importance of supervisory support (Baldwin & Magjuka, 1991; Ford, Quinones, Sego, & Sorra, 1992; Xiao, 1996). In addition, even brief and

modest interventions from supervisors can have a strong impact on training transfer (Brinkerhoff & Montesino, 1993).

As Ajzen (1984) noted, the degree to which intentions are converted into acts and products is partially determined by various inhibiting and facilitating control factors found in the environment (Tannenbaum & Yukl, 1992). Management actions provide cues and signals that influence employee motivation (Baldwin & Magjuka, 1991). The pre-training environment contains many cues about training; some are conveyed by management, others by peers or are reflected in organizational policies and practices. Elements of post-training environment can encourage (e.g. rewards, job aids), discourage (e.g. ridicule from peers), or actually prohibit the application of new skills and knowledge on the job [e.g., lack of necessary equipment] (Tannenbaum & Yukl, 1992).

A positive transfer climate has been identified as impacting transfer. Positive transfer climate was found to consist of eight dimensions: goal cues, social cues, task and structure cues, self-control cues, positive feedback, negative feedback, punishment, and no feedback (Rouiller & Goldstein, 1993). Transfer of training climate (social and goal cues, task cues, no-feedback consequences, punishment consequences, extrinsic reinforcement consequences, intrinsic reinforcement consequences) has demonstrated direct effects on post-training behavior (Tracey, Tannenbaum, & Kavanagh, 1995).

Continuous-learning culture (social support, continuous innovation, and competitiveness) had direct effects on post-training behavior (Tracey, Tannenbaum, &

Kavanagh, 1995). In addition, learning and job performance were both significantly affected by situational constraints and a continuous learning culture (Martineau, 1995).

Finally, the systematic nature of training effectiveness has been supported (Martineau, 1995). For learning and the resulting performance to take place, there must be alignment and synergy between trainee characteristics, training design, and the learning environment.

Viewing Training as a Process

Most training today is viewed as a one-time, isolated event such as a one-day seminar on handling disruptive workers or a four-hour session on time management. At best, training might include a number of events over time such as a series of half-day supervisory training sessions spanning a period of six weeks with assignments in-between. Under this model, it is easy (and helpful) to think about activities as before training, during training, and after training (Broad & Newstrom, 1992).

Learning that helps produce improved performance occurs in a stream of events that are planned, managed, reinforced, and monitored as an integrated learning process. Learning occurs not only from the formal training events but also from all the other activities that occur within the environment of the learner.

Brinkerhoff and Gill (1994) have proposed that what is needed is a view of training and development as the total process by which learning adds value to the organization. Training and development is a process that starts upon determining a

performance need and proceeding (indefinitely) until no longer warranted. Specific events occur throughout the process that support (or hinder) the overall performance goals. When thinking about training and development as a process, many factors that seemed external to the training and development (before or after) are really a part of the process and should be considered part of the design. Under this new model, the Before-During-After approach must be re-thought or abandoned all together.

Human resource development practitioners are discovering that training is but one tool in a tool kit that impacts all elements of a larger learning and performance system. Climate and culture are important elements of the work environment, and a supportive work environment is critical to learning transfer, training effectiveness, and the resulting organizational effect.

Performance Technology

Though training is usually the performance improvement remedy first selected by management, it is very often not the most effective alternative (Dean, Dean, & Rebalsky, 1996). Other solutions can often provide better results.

The purpose of performance engineering (technology) is to engineer worthy performance--in which the value of the accomplishment exceeds the cost of the behavior. Performance is achieved by maximizing the value of results while minimizing the cost of behavior (Gilbert, 1978). Performance technologists will consider any and all alternative solutions weighed against this criterion.

Performance technologists embrace a view of organizations as complex,

adaptive systems. All elements of a system must align and work together for performance to be optimized. Changing one element of a system impacts all the other elements of the system. Healthy systems establish and maintain mutually beneficial relationships with their environments (Brethower, 1984).

The behavioral components of performance consist of a person with a repertory of behavior and a supporting environment. Therefore, attempts to improve performance must either alter a person's behavior repertory, change the environment, or do both. Gilbert's (1978), behavior engineering model combines these two aspects with three components that have the greatest impact on performance to create six factors of behavior. Figure 2 displays and defines each of these aspects.

Gilbert states that all six elements are equally important, but efforts to improve performance should start with the work environment components of providing the appropriate data, furnishing the correct instruments, and establishing proper incentives since focusing efforts here result in the highest return on investment. It is management's responsibility to make sure these elements are in place.

Using Gilbert's Behavior Engineering Model as a guide, a study was undertaken to learn people's perceptions of the work environment factors that interfere with performance. Roughly two-thirds of the people in five of six groups identified the work environment factors of information, resources, and incentives as their biggest performance block (Dean, Dean, & Rebalsky, 1996).

Rummler and Brache (1990) systems view of organizational performance builds from and expands Gilbert's work. They show performance occurring at three

S Information	R Instrumentation	S Motivation
<u>Data</u> 1. Relevant and frequent feedback about the adequacy of performance 2. Descriptions of what is expected of performance 3. Clear and relevant guides to adequate performance	<u>Instruments</u> 1. Tools and materials of work designed scientifically to match human factors.	<u>Incentives</u> 1. Adequate financial incentives made contingent upon performance 2. Nonmonetary incentives made available 3. Career-development opportunities
<u>Knowledge</u> 1. Scientifically designed training that matches the requirements of exemplary performance 2. Placement	<u>Capacity</u> 1. Flexible scheduling of performance to match peak capacity 2. Prosthesis 3. Physical shaping 4. Adaptation 5. Selection	<u>Motives</u> 1. Assessment of people's motives to work 2. Recruitment of people to match the realities of the situation.

Figure 2. Behavioral Engineering Model (Gilbert, 1978).

Source: Gilbert, T.F. (1978). Human competence: Engineering worthy performance. New York: McGraw-Hill.

interrelated and interdependent levels: organization, process, and performer. Performance improvement efforts are challenging because they must consider and address the interconnectivity of all 3 performance levels. Successful performance improvement efforts address organizational issues first, process issues second, and lastly look at the performer and his/her environment (in their terminology-the Human Performance System).

Figure 3 shows the performer and the environment that form the Human Performance System. The diagram defines the six factors of performance specifications, task interference, consequences, feedback, knowledge/skills, and individual capacity.

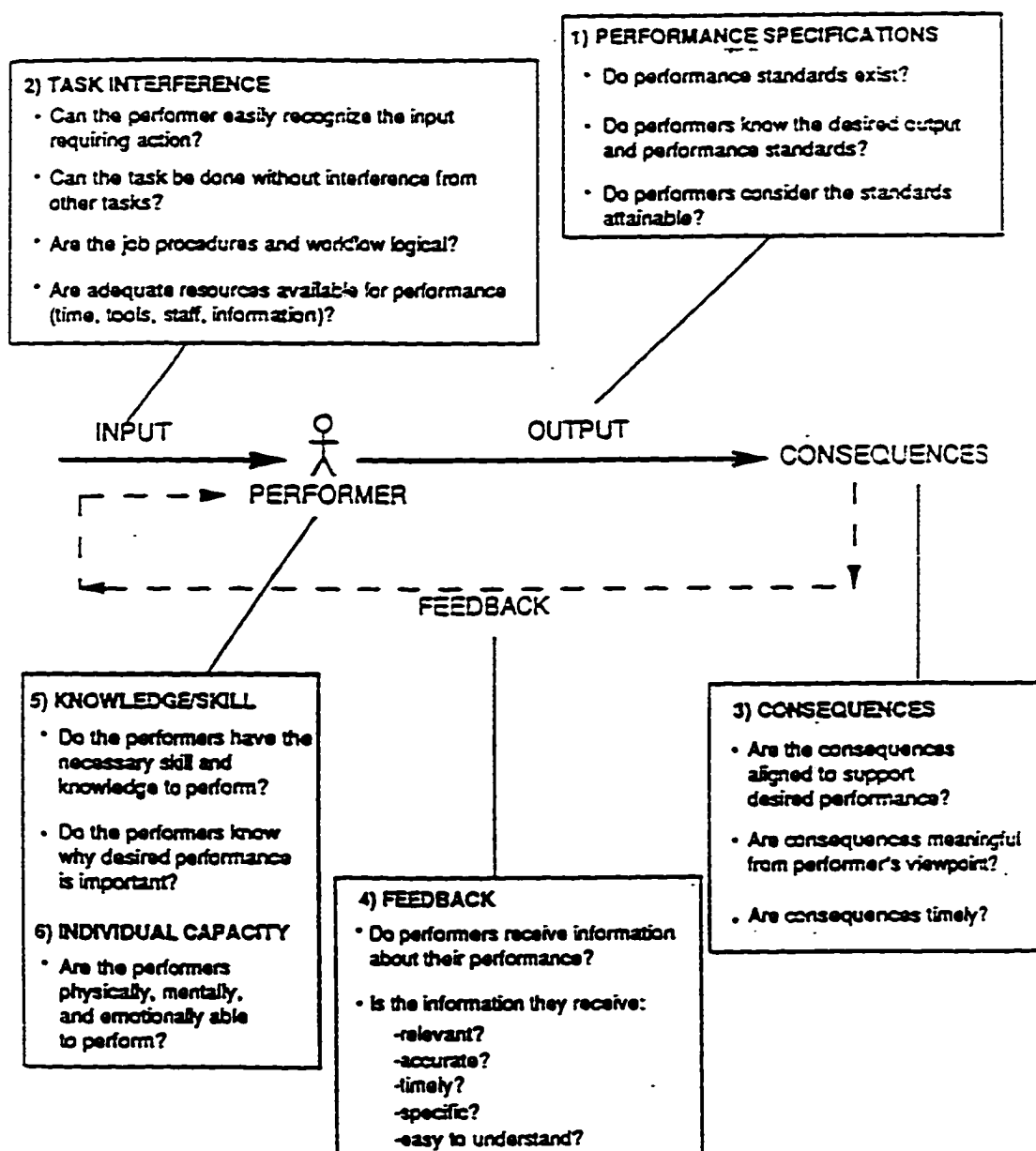


Figure 3. Factors Affecting the Human Performance System.

Source: Rummler, G. & Brache, A. (1990). Improving performance: How to manage the white space on the organization chart. San Francisco: Jossey-Bass.

Rummler and Brache strongly state that attempting to improve the knowledge and skills of performers should only occur after the first four work environment factors

have been successfully addressed. They believe that about 80% of performance improvement opportunities reside in the work environment, with 15 to 20% of the opportunities in the skills and knowledge areas, and fewer than 1% of performance problems result from individual capacity deficiencies.

Another important consideration is that Rummler and Brache (1990) view performer motivation as an output, not an input. By this they mean that motivation is a natural result of a strong work environment free of obstacles to accomplishing expectations. Drucker (1990) reinforces this concept when he states that management cannot motivate workers, all they can do is try not to quench motivation.

Performance technologists believe that the work environment is an integral element of a system of performance and thus plays a very big role in learning. It is management's responsibility to create and support a work environment that minimizes interference to accomplishing worthy objectives.

Total Quality

The total quality movement enhances similar concepts that support the significance of the work environment to performance. Deming (1982) maintains that only 15% of performance problems are worker problems and 85% are management problems. He states that it is management's responsibility to provide a work environment that lets people do their job correctly. Juran (1995) also reports that the work environment is essential to performance. He believes that before an employee can do his or her job at all, three indispensable elements of the work environment must be in

place: (1) knowledge of what he or she is supposed to do, (2) knowledge of how well he or she is doing it, and (3) means for changing performance if it is not meeting his or her goals. Unless all three of these elements are in place, management has not completed its job.

Culture is a critical part of the work environment, and any efforts aimed at producing organizational learning and change must deal directly with the culture of the organization. There is no such thing as technical change without a social effect, and social changes are a threat to the status, habits, beliefs, and values of the people involved. Members of the culture will resist any and all efforts that they feel attack "their way of life" (Juran, 1995).

Quality experts also expound a systems view of performance with a strong emphasis on process improvement (Davenport 1993; Harrington 1992). In process improvement, management is responsible for creating the right environment-providing resources, eliminating obstacles, and shaping a supportive culture. Key components of the culture include the concepts of employee involvement, "no blame," and continuous improvement. Thus it is everyone's responsibility to learn and develop personal capabilities on an on-going basis.

Total Quality proponents also understand and advocate the need for speed. A key performance goal is cycle time reduction-how to effectively and efficiently deliver value fast (Harrington, 1991). Process cycle times are effectively compressed when priority is placed on maximizing customer value, minimizing business requirements, and eliminating waste (Alexander & Lyons, 1995). For this to occur, the work

environment must be free of obstacles to getting the job done right the first time.

Organizational Learning

Organizational learning is the term popularly applied to an emerging discipline that aims to understand and manage the manner in which learning occurs in and shapes entire organizations. Organizational learning has been described and defined in a number of different ways. Yet many proponents of these concepts agree that learning in organizations matters now more than in the past because of the growing importance of workforce competence, the need for change, and increasing competitiveness (Ulrich, Von Glinov, & Jick, 1993). According to Stata (1989) organizational learning is the principal process by which management innovation occurs. Block says that in the future, "learning and performing will become one and the same thing. Learning will be the only job left to managers" (Argyris et al., 1994, p. 38).

Argyris and Schön's (1977) seminal work defines organizational learning as the detection and correction of error. They view organizational learning from two perspectives. Single-loop learning permits the organization to carry on its present policies. Double-loop learning modifies the underlying norms, policies, and objectives of the organization. Double-loop learning is necessary to bring about any lasting change of significance and is dependent upon developing new ways of thinking. In addition, for organizational learning to occur, what individuals discover, invent, and evaluate must somehow be embedded in organizational memory.

Other authors define things differently. Garvin (1993), says a learning

organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights. Nevis et al. (1995) states that organizational learning is the capacity or processes within an organization to maintain or improve performance based on experience. Learning is a systems-level phenomenon because it stays within the organization even if individuals change. Organizations learn as they produce. Learning is as much a task as production and delivery of goods and services. Finally, Ulrick, Von Glinov, and Jick (1993) state that learning capability represents the capacity of managers within an organization to generate and generalize ideas with impact.

Building off Argyris and Schön, the researcher defines learning as the detection and correction of error and the detection and exploitation of opportunity that leads to improved performance. For organization learning to occur, systems must be in place to capture, store, and transfer what is learned (knowledge) to organization stakeholders. By this definition, all organizations learn; some just do it much better than others.

Learning Contributors

The organizational learning literature, supports the systems approach discussed under earlier disciplines. In fact, Senge (1990) states that systems thinking is the most critical of his five disciplines (systems thinking, personal mastery, mental models, shared vision, and team learning).

Yet, other factors may need to be present for organizations to learn effectively. In order to achieve organizational excellence, learning, competence, and justice must

be an everyday part of the organization (Argyris, 1990). Learning organizations are skilled at 5 main activities: systematic problem solving, experimentation with new approaches, learning from their own experiences and past history, learning from the experiences and best practices of others, and transferring knowledge quickly and efficiently throughout the organization. Each is accompanied by a distinctive mind-set, tool kit, and pattern of behavior (Garvin, 1993).

The governing variables of double-loop learning are valid information, free and informed choice, and internal commitment (Argyris & Schön, 1977). In addition, all members of the organization must begin struggling with a new level of self awareness, candor, and responsibility (Argyris, 1994). Finally, dialogue has been proposed as a learning contributor because of its potential for promoting collective thinking and communication (Isaacs, 1993).

Defensive Routines

Organizations tend to create learning systems that inhibit double-loop learning (Argyris & Schön, 1977). Organizational defensive routines are a direct threat to organizational learning. Organizational defensive routines may be defined as any policy or action that prevents someone (or some system) from experiencing embarrassment or threat, and simultaneously prevents anyone from correcting the causes of the embarrassment or threat. Organizational defensive routines are anti-learning and overprotective (Argyris, 1992).

Argyris (1990) feels that management consulting should focus on identifying

and eradicating organizational defenses because they, more than any other factor, are likely to diminish the value the consultants can add for them. Expanding on Argyris' point, all important organizational interventions must identify and deal with organizational defenses. The strongest element of an organization's defense mechanism lie in its culture.

Organization Culture

Culture is the set of shared, taken-for-granted, implicit assumptions that a group holds and that determines how it perceives and reacts to its various environments. The most useful way to think of culture is to view it as the accumulated shared learning of a given group, covering behavioral, emotional, and cognitive elements of the group members' total psychological functioning (Schein, 1992). Learning conforms to culture (Nevis et al., 1995) and the values and culture of an organization have a significant impact on the learning process and on how effectively a company can adapt and change (Stata, 1989).

Culture can have a major effect on an organization's long-term economic performance. Over an 11-year period, corporations that exhibited certain cultural traits outperformed those that did not. Net incomes improved by 756 percent versus 1 percent (Kotter & Heskett, 1992). So creating the "right" culture may have a huge bearing on long-term success.

Yet culture is a primary source of resistance to change. Full-frontal attacks to "change the culture" are not effective. Culture is the result of actions that take place

over many years and efforts to change it in the short-run will fail (Kotter, 1996).

So, considering the issue of perpetual learning and constant change in the context of cultural analysis, a paradox arises. Continuous learning requires continuous change-the very thing that culture abhors. The challenge then is to develop a culture over time that embraces (and holds constant) continuous learning and change (Schein, 1992).

The implication then is that culture must first be understood as to which "ways of doing things around here" are embedded in the organization, which support organization learning, and which hinder it. This becomes a measure of environmental health. Then the organizational leadership can take actions that over time will change the culture to one more supportive of the organization learning and the accomplishment of the organization strategy.

Culture ties into organizational learning and directly contributes to organization results. Culture is a vital part of the work environment in which learning does or does not take place. Within the culture lie the organizational defenses articulated by Argyris which must be dealt with if significant learning is to occur.

Rapid Developer Guidelines

Reviewing the concepts and precepts from these various disciplines confirms that for learning, performance, and organizational results to occur:

1. Learning and development initiatives should focus on positively impacting the critical business issues of the organization.

2. Learning and development should be viewed as a process dependent on a number of stakeholders and numerous activities that occur over time.

3. Learning and development initiatives must be thought of as elements of a larger performance system.

4. Learning and development depend upon the quality of three elements: the characteristics (skills, knowledge, mindset, and capacity) of the developer, the learning intervention, and the environment in which the developer performs. All three elements are important, however, the work environment has the biggest impact on learning.

5. To maximize results, the work environment should be addressed before attempting learning initiatives aimed at the developer.

6. The work environment is made of factors that are under the direct control of management (situational factors) and factors that are influenced over time by the leadership of the organization (cultural factors).

7. The organization defensive mechanisms that work to slow down and scuttle initiatives must be addressed if significant (double-loop) learning is to occur and be sustained.

Individuals charged with directing organization change and organization learning must be concerned with all the factors that contribute to rapid development. The rapid developer model displayed in Figure 4 takes these elements into consideration. The model was developed based upon the literature discussed above and the practical experience of the researcher. Feedback was obtained from two experts-both university professors and recognized performance improvement practitioners. The model

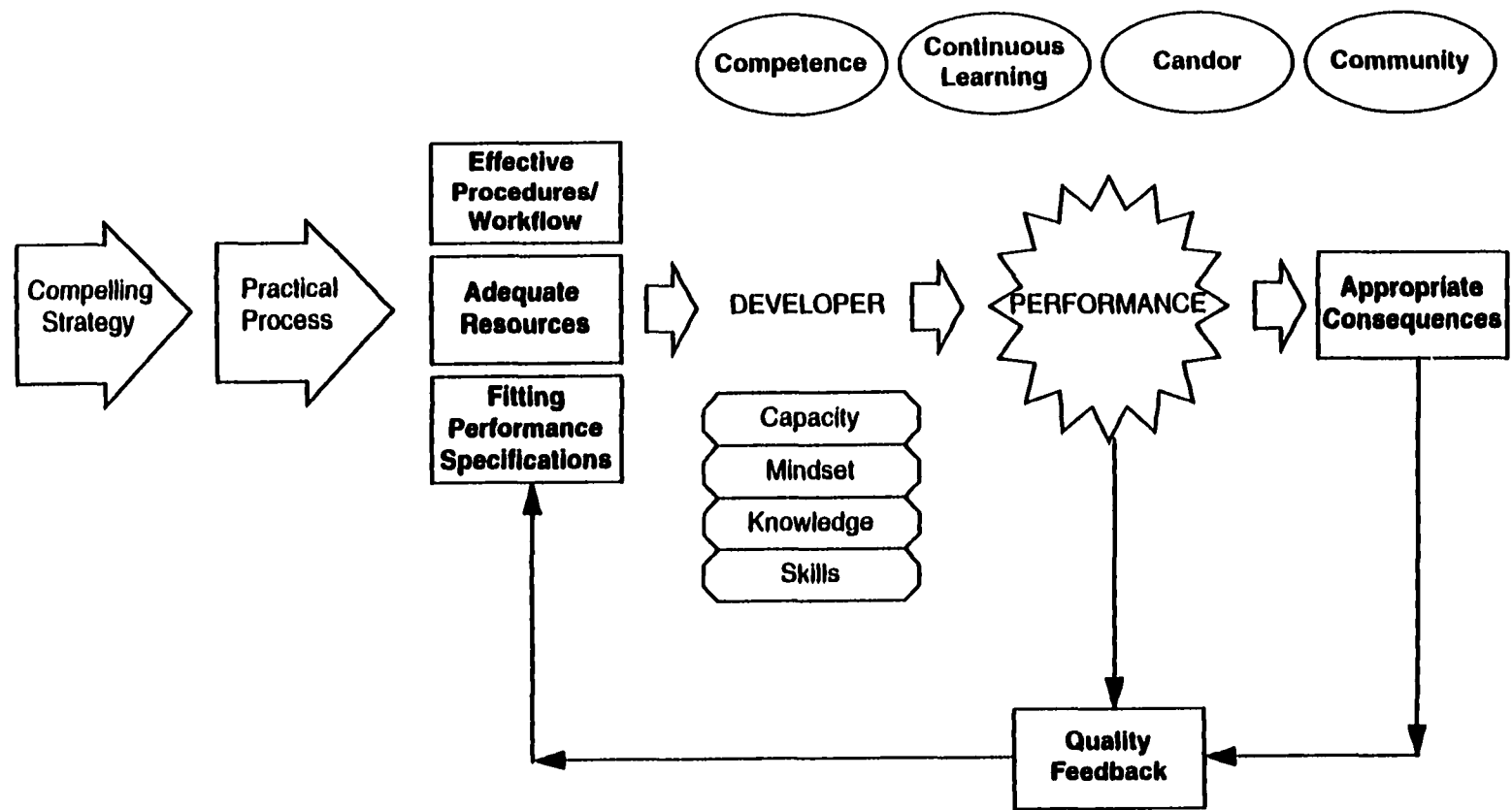


Figure 4. Rapid Developer Model.

includes five major components that promote rapid learning and development: (1) a compelling strategy that defines the mission, vision, values, goals, focus, core competencies, organizational design, and critical business issues of the organization; (2) practical processes that maximize customer value, minimize business requirements, and eliminate waste; (3) a supportive work environment; (4) performers with a capacity for learning, mindsets that align with the strategy, and the knowledge and skills necessary to perform their jobs and contribute to organization success; and (5) a high-quality learning intervention.

Studying all aspects of rapid development is beyond the scope of this investigation. This research focuses only on the work environment shown in Figure 5, which is defined as five situational factors and four cultural factors. Listed below is a definition of each of these nine factors and the rationale for their inclusion in the model.

Situational Factors

As stated by Senge, the learning capabilities that really matter are inseparable from work. Management is the only group that can make learning happen (Argyris, Bellman, Geoffrey, Blanchard, & Block, 1994).

Fitting Performance Specifications

Choosing the right job objectives and expectations is vital to performance. Mistakes in decisions about expectations and goals are the greatest single cause of human incompetence (Gilbert, 1978). Since the role of people is to make processes

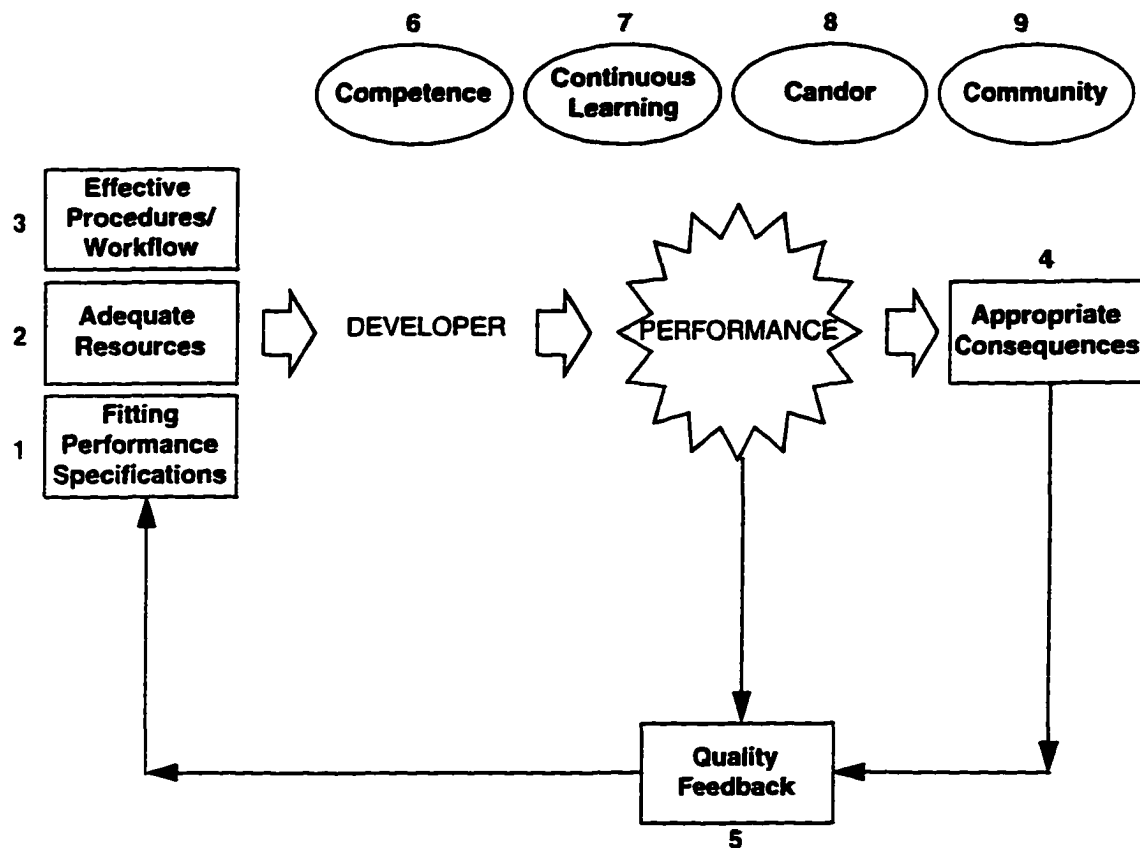


Figure 5. Work Environment-Rapid Developer Model.

work, we need to make sure that their goals reflect process contribution (Rummler & Brache, 1990). Learning goals must be present that link expected learning results to organizational strategies and goals (Brinkerhoff & Gill, 1992).

These statements receive support from the training effectiveness literature as expectations appear to be a central construct in understanding training effectiveness (Tannenbaum & Yukl, 1992). The setting of goals acts as cues to learners that management deems the training to be important. This results in higher transfer of learning (Rouiller & Goldstein 1993; Tracey, Tannenbaum, & Kavanagh 1995).

Summing things up, simply providing objectives improves learning (Zemke & Gunkler, 1985).

This factor is present when: (a) the new performance specifications are clear, (b) the new performance specifications are realistic, (c) the new performance specifications align with other expectations, (d) the new performance specifications support the business process/ strategy, and (e) the performer's understanding of the need for change aligns with senior management's understanding.

Adequate Resources

Gilbert (1978) states that "improved information has more potential than anything else I can think of for creating more competence in the day-to-day management of performance...more than half the problems of human competence can be traced to inadequate data" (p. 175).

Adequate resources are required to effectively and efficiently meet new job expectations. Application of new skills and knowledge on the job is prohibited when resources, e.g., necessary equipment, are lacking (Tannenbaum & Yukl, 1992).

This factor is present when: (a) performers have the information they need when they need it to meet new expectations, (b) performers have the necessary staffing to meet new expectations, (c) performers have enough time to meet new expectations, and (d) performers have the appropriate tools to meet new expectations.

Effective Procedures/Workflow

Job policies and procedures can significantly help or hinder process effectiveness. Tasks should be performed in a sequence and manner that are most appropriate to fulfilling requirements. Only activities that directly contribute to meeting expectations should be required, and outside interference must be eliminated or at least minimized.

The job's ergonomics must support optimum performance (Rummler & Brache, 1990). In addition, the opportunity to perform new tasks is important to learning (Ford, Quinones, Sego, & Sorra, 1992).

This factor is present when: (a) job procedures and workflow are logical for the new tasks, (b) there are ample opportunities to perform new tasks, and (c) the tasks can be done without interference from other tasks.

Appropriate Consequences

When people know that there are consequences attached to outcomes, they pay more attention to what they are doing. Intent to transfer learning is greater when participants recognize that they are accountable for learning (Baldwin & Magjuka, 1991). Knowledge is more likely to be transferred correctly when appropriate incentives are in place, and incentives that favor risk-taking are important to inducing people to adopt new behaviors (Garvin, 1993).

This factor is present when: (a) consequences are aligned to support the newly desired performance, (b) consequences align with other performance expectations, (c)

consequences are timely, and (d) consequences are meaningful to the performer.

Quality Feedback

Most people prefer to have a scorecard that reflects how well they are doing compared to standards. The only people that do not like to be measured are the poor performers (Harrington, 1991). The same holds true for new knowledge and skills. Learning activities must be measured and tracked (Brinkerhoff & Gill, 1992; Garvin, 1993).

This factor is present when: (a) feedback is relevant, (b) feedback is accurate, (c) feedback is timely, (d) feedback is specific, and (e) feedback is easy to understand.

Cultural Factors

Leadership and culture are two sides of the same coin. It is the primary role of the leader to create the culture in the start-up phase of the organization, nurture the culture during growth and maturity, and change the culture at the point of organizational decline. This is the leader's prime mandate (Schein, 1992).

Competence

As the work of organizations centers more and more around knowledge, competence is becoming an increasingly scarce resource (Ulrich, Von Glinov, & Jick, 1993). In order to achieve organizational excellence, competence must be an everyday part of the organization (Argyris 1990; Senge 1990). For competence to be

in place, genuine empowerment must be in place with performers assuming personal accountability (Argyris, 1994).

The concept of competence also predicts that the amount and intensity of work does not necessarily correlate with contribution (Gilbert, 1978). A worker who meets job requirements in 40 hours is much more productive than a worker who takes 70 hours to do the same job. Organizations should applaud and reward people able to do more in less time, while tolerating unusual behaviors that may accompany their efforts.

This factor is present when: (a) results are valued more than hard work, (b) performance is more important than political connections in getting recognized and rewarded, (c) individuals are expected to take personal responsibility for their actions, and (d) there is tolerance of unusual style or behavior of the people who do good work.

Continuous Learning

Constant improvement is now an organizational necessity. Continuous learning is a capability that all organizations should develop (Argyris, 1992; Drucker, 1995, Garvin, 1993; Harrington, 1991). A continuous learning work environment is one in which organizational members share perceptions and expectations that learning is an important part of everyday work life (Tracey, Tannenbaum, & Kavanagh, 1995). As stated by Wheatley, learning is becoming the primary job of a work enterprise (Argyris et al., 1994).

Learning comes from many small failures (Ulrich, Von Glinov, & Jick, 1993), and learning from failure is an important competency (Argyris, 1992). Organization performers should review past successes and failures, assess them systematically, and record the lessons in a form that employees find open and accessible and shared across boundaries (Garvin, 1993; Ulrich, Von Glinov, & Jick, 1993). Putting incentives in place that reward the risk-taking behaviors of practicing new learning helps promote this factor and increases the speed of learning and development (Garvin, 1993).

This factor is present when: (a) continuous improvement is valued; (b) innovation is valued; (c) methodologies are in place to support both continuous improvement and innovation; (d) systems are in place to capture, store, and transfer knowledge; and (e) quality failure is acceptable.

Candor

Managers often censor what everyone needs to say and hear. All organizations create elaborate defense mechanisms designed to cover up problems and to help people save face. Organization members collude so that actions and the thinking behind them are not challenged (Argyris, 1994).

Sustainable major change requires double-loop learning in which everyone not only questions objective facts, but also the reasons and motives behind those facts. People must feel free to question, confront, and ask the question behind the question (Argyris, 1992). Senge states that the ability of everyone to continually challenge

prevailing thinking is a necessity (Argyris et al., 1994).

The first step in overcoming defensive reasoning is to understand organizational defense mechanisms (Argyris, Allyn, & Bacon, 1990). People must use productive reasoning-strive to make premises, inferences, and conclusions explicit and subject them to public tests that are genuinely independent. To overcome skilled incompetence, people have to learn new skills, to ask the question behind the question (Argyris, 1992).

Reflection is a necessary precursor to candor (Argyris, 1994; Schön, 1983). Individuals must reflect on their own behavior and attitudes as well as the thinking behind those behaviors and attitudes.

Dialogue is also recognized as an important contributor to candor (Issacs 1993; Schein 1993; Senge 1990). Dialogue is the sustained collective inquiry into the processes, assumptions, and certainties that compose everyday experience (Isaacs, 1993). In fact, dialogue is a central element of any model of organizational transformation (Shein, 1993).

People seldom do what they say they do. Ask a group of exemplary performers what they do to be successful and they will tell you everything that they have ever read on the subject and everything that they think the questioner might want to hear. In order to truly understand what people do and why they do it, they must first be observed in action, then questioned about the thinking behind their behavior and the logic behind their thinking (Gilbert, 1978).

This factor is present when: (a) people are frank, even when ideas directly

confront those of superiors; (b) people challenge the unsupported talk and actions of others; (c) people routinely stop to reflect about what they are doing and why; and (d) exemplary performers are regularly observed and analyzed to help fuel improvement efforts.

Community

People must feel safe in learning with the opportunity to try out new things without fear of punishment (Schein, 1993). Only with support, insight, and fellowship of community can we face the dangers of learning meaningful things. What is needed are communities of commitment (Kofman & Senge, 1993) and the concept of shared identity that comes with it (as stated by Wheatley in Argyris et al., 1994).

Senge believes that individuals pursuing their own interests often cause everyone to lose (Argyris et al., 1994). Cooperation and cohesion among employees, managers, teams, functional units, and so on, are encouraged and supported such as they become institutionalized (Tracey, Tannenbaum, & Kavanagh, 1995). Involvement of everyone is the key to accelerating organizational change (Argyris, 1992).

This factor is present when: (a) people routinely support people who ask for help, (b) people think of their roles in terms of the larger organization, (c) people are involved in the change effort and feel they can influence what happens, and (d) social interactions are encouraged.

This chapter reviewed the relevant literature on learning and development related to the work environment from the five disciplines of Training, Performance

Technology, Total Quality, Organization Learning, and Organization Culture. The commonalties relevant to this study were uncovered and some guidelines for rapid development were established. With further literature support, the nine most relevant work environment factors were defined. These work environment factors include the five situational factors under the control of organizational management and the four cultural factors under the influence of organizational leadership.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this chapter is to discuss the methods and procedures used to answer the research questions and to test the hypotheses. The chapter is divided into six sections. *Design Overview* provides a concise overview of the design and the rationale behind it. The *Participants* section explains how these three organizations were selected. *Implementation Procedures* outlines the actions taken step-by-step. *Sampling* explains how the rapid developer and comparison groups were selected. *Instrumentation* explains the need for the instruments, their intent, and how they were developed. Finally, the *Quality Control* section describes the five dimensions of good research utilized by the researcher as standards for this investigation. The positive attributes as well as shortcomings of this study are discussed in this section.

Design Overview

The overall study design consists of two phases. In the first phase, the author reviewed the literature pertaining to workplace learning and development in order to construct a nine-factor “rapid developer” model. This model identified and defined the contextual factors that could be expected, based on an understanding of current theory, research, and best practices, to be associated with rapid development.

The second phase of the study involved an empirical test of the rapid developer

model. In each of three large corporations, employees were identified to include a sample of rapid developers and a comparison group (not-rapid developers). Rapid developers were selected using a systematic process and members of the comparison group were selected by random sample (described later in the chapter). In-depth interviews were conducted of all participants to learn their perceptions of work environment factors. All conversations were recorded, transcribed, then analyzed by the researcher to determine the presence or absence of each of the nine factors. Both descriptive and inferential statistics were developed to address the research questions and hypotheses.

Three organizations were chosen with different types of population so that if the hypotheses were supported, more credence would be given to the possible transferability of the finding to different populations. An overall sample size of about 60 was selected to improve the probability of showing statistical differences if differences in the samples did exist.

Structured interviews were utilized to provide consistency and to make responses more measurable and comparable. Interviews were recorded and transcribed to capture the thoughts, feelings, and actual verbiage of respondents as well as to limit bias.

This study design integrated the qualitative analysis of case methodologies with both the descriptive and inferential statistics of quantitative analysis. A case approach is appropriate for several reasons. Number one, although the importance of the work environment to learning and development has been forwarded by several authors, to

the researcher's knowledge no significant prior research had been conducted to support these conjectures. Hence, there was a limited foundation of knowledge upon which to build. Cases can provide not only the perceptions of the respondents, but also the thoughts and feelings behind the answers in the individual's actual words. This qualitative data are necessary to build understanding, convey meaning, and further define concepts.

Providing descriptive statistics was seen as valuable to serve as benchmarks for further studies. Again, with no earlier research to draw upon, baselines would have to be first created before future findings could be compared to them.

Participants

Prior to searching for appropriate participants, the researcher developed the following criteria to qualify interested organizations:

1. The organization was undergoing a significant developmental effort (defined as one in which the management of the organization said yes to the question, "Are the results of this developmental effort critical to accomplishing the goals of the organization?").

2. There were 50 or more individuals within the group undergoing development.

3. Management saw potential value and was willing to participate.

The researcher identified 13 potential organizations based upon the researcher's past experience/familiarity with the organizations. The researcher sent either a letter

or fax (see Organization Letter) to either senior managers or performance improvement professionals in each potential organization outlining the purpose of the study and the potential benefits of participation. The researcher followed up with a telephone call to determine possible interest. Eight of the thirteen organization representatives expressed interest in the study. Two organizations from the initial list of thirteen met the qualification criteria. The researcher contacted two more organizations, and one of these met the qualification criteria. Once the goal of committing three qualified organizations to the research was completed, the search process was ended.

Organization A, Pharma Health (Note: Pharma Health, Mega Power, and Uptime Inc., are fictitious names) is an international pharmaceutical manufacturer. Salespeople from the US division of a subsidiary were the research respondents. Organization B, Mega Power, is a US regional power utility. First-line supervisors selected from their service centers were the respondents. Organization C, Uptime Inc., is the service subsidiary of the manufacturer of industrial energy-related equipment. Field engineers selected from their US division were the respondents.

More detailed profiles of each of the three participating organizations are presented in Appendix A. The purpose of this appendix is to provide a more in-depth description of each organization including the change process they have implemented, the thinking behind the change, their business issues, and management's expectations of the targeted population members.

The organization sponsors of all three organizations stated that a major change

was occurring in the identified populations and significant learning and development was required for improvements in performance to be realized. All three stated an interest in the research topic and a desire to learn more about it in their particular situations. Also, all developers in the three organization populations were located "in the field," not having continuous contact with either their immediate supervisors or other members of the management team. In addition, the individuals of all three groups had regular, on-going customer contact.

However, members of the three populations had distinctly different jobs: sales, service, and supervision. Also, all were at different stages of the change process. Mega Power was two years into the change, Pharma Health one year, and Uptime Inc. only about three months. Also, there were some differences in respondents' perceptions of the magnitude of the changes taking place. In reviewing the transcripts of the respondent interviews from Pharma Health and Mega Power, the researcher describes respondents as viewing the changes they are undergoing as dramatic change. However, as is discussed at different points later in the dissertation, Uptime Inc. respondents saw the changes happening in their work as only being minor.

Implementation Procedures

Listed here are the step-by-step, sequential procedures implemented in conducting the research. Note that all of the instruments mentioned in this section are more fully described in the Instrumentation section, and all of the actual instruments are contained in the Appendix.

Confirm Expectations

The researcher talked with the organization sponsor from each organization to make sure that they understood and agreed to the research design. Roles and responsibilities were clarified and confirmed and preliminary timelines were set. Each organization sponsor assigned their administrative support person to assume the role of organization collaborator and to help the researcher throughout the study.

Gather Background and Contextual Information

The researcher interviewed (face-to-face or over the telephone) the organization sponsor and 2 to 3 managers for 30 to 90 minutes each to better understand the background, context, interventions, and new expectations of the participant population. All interviews were audiotaped and the Management Question Guide was used as a job aid to ensure that all relevant questions were answered by all interviewees. The researcher felt that the management personnel interviewed were very candid in their responses. Furthermore the organization sponsor and managers provided the researcher with literature on the organization such as business descriptions, capabilities, issues, products and services, and job descriptions of the targeted population.

Select Rapid Developers

This step describes the two complementary methods used to select the rapid developers. Note that in both situations codes (assigned numbers) were used in all

communications so that the researcher never knew the names of the individuals being discussed.

In Pharma Health, the researcher facilitated a group of six managers and the organization collaborator in a two-hour meeting to determine the rapid developers. The Rapid Developer Guide was used by the researcher as a tool to help plan and direct the session. Using the rapid developer criteria constructed specifically for Pharma Health (see Research Findings Report in Appendix Q), the managers nominated 17 salespeople as rapid developers. Further discussion was held and consensus was reached by the group on the ten they chose as the "most rapid" rapid developers in the organization. These ten became the rapid developer sample.

In the other two organizations, the researcher orchestrated the determination of rapid developers over e-mail by gaining the input of the managers who supervised the target population. First, the organization sponsor sent an e-mail to the managers sanctioning the research and asking for their cooperation with the researcher. Next, the researcher sent a message explaining the research, its importance, the specific rapid developer criteria determined for their organization, and specific steps requested of them to follow in nominating rapid developers from their pool of employees. Sixteen Mega Power managers nominated 26 individuals as rapid developers, and nine Uptime Inc. managers nominated 26 individuals. At Mega Power, 3 Managers were appointed by the Organization Sponsor to review the list of 16 and recommend to the other Managers a list of 10 rapid developers to be interviewed. The 10 they recommended were accepted by their peers without changes. At Uptime Inc. the

researcher reviewed the rationale provided by the Managers and made the decision as to which 10 individuals were to be selected for interview. The researcher selected the top nominee from each of the nine Managers. To select the final individual to be included in the interview process, the researcher reviewed all of the remaining nominees and selected the one perceived by the researcher as best meeting the rapid developer criteria.

In each of these three organizations, one individual (the Organization Collaborator) coordinated research logistics and took the necessary steps to safeguard the anonymity of the individuals involved in the research. At this point in the research process, the Organization Collaborator collected the codes identifying the names of the rapid developer nominees as well as those selected to be interviewed and locked them away.

Select Comparison Group

The researcher discussed with each Organization Collaborator the steps to select the comparison group, including methods in selecting a random sample. Starting with the entire population, the Organization Collaborator first removed all individuals nominated as rapid developers by the managers and then removed all individuals who had not been active in their jobs long enough to have experienced work life in the same job prior to the organizational changes. From the remaining members of the population, the Organization Collaborator took responsibility for the selection of a random sample of ten who would become the comparison group. In

each situation, the Organization Collaborator found an individual in the organization familiar with statistics and sampling procedures to conduct the random sample.

Notify Interviewer

With all individuals to be interviewed determined, the organization collaborator took the ten codes of the individuals selected as rapid developers to be interviewed and added them to the ten assigned codes from the random sample. The organization collaborator converted the codes into names, added phone numbers and faxed the 20 names and phone numbers to the interviewer. The researcher had no involvement in this activity and was not provided the names of any individuals selected to be interviewed.

Notify Participants

Concurrently, prospective participants were contacted by the organization sponsor via e-mail. They were informed of the general purpose and value of the research, assured of confidentiality, and asked to participate candidly. They were informed that the interviewer would be calling them to schedule an interview.

Conduct Interviews

The interviewer contacted the individuals and conducted the interviews over the phone. All interviews were audiotaped. Interview length varied from about 20 to 60 minutes with the average length being about 35 minutes. The interviewer followed

the same questioning outline for each interview, yet was flexible in gathering the information depending upon the specific situation. The interviewer completed all interviews for each respective organization within ten days of receiving the names.

All 20 individuals participated at Pharma Health. Nineteen (19) individuals participated at Mega Power (one individual was off work due to an illness and was not contacted). Eighteen (18) individuals participated at Uptime Inc. (Two individuals contacted elected not to participate. One of the 18 individuals interviewed had been promoted to a new position and, after review of the transcript, the researcher decided that the information was inappropriate and eliminated it from the study).

After all the interviews were completed, the researcher queried the interviewer about respondents' reactions to the interviews. Overall, the interviewer felt that people were very candid in their comments. He attributed this to the support of the organization sponsors. The interviewer stated that the respondents used the interview as a chance to vent.

The interviewer stated that the individuals from Mega Power had trouble with the questions concerning resources and that he had to further define and explain what was meant by resources for many of those interviewed. In responses from all three organizations there was confusion about the difference between feedback and consequences. Also some people were not familiar with thinking about consequences positively and time had to be taken to explain the intended meaning of this concept. In addition, the interviewer confirmed that the questions did not work as well for

Uptime Inc. because all Uptime Inc. respondents perceived the degree of change in their expectations as being minimal.

Transcribe Audiotapes

As interviews were completed, the interviewer delivered the audiotapes to the transcriptionist. The transcriptionist typed up the conversations word-for-word eliminating the name of the individual being interviewed and substituting a research code.

The overall quality of the audiotapes was very high. When the transcriptionist needed clarification regarding content of the audiotape, the transcriptionist obtained the input of the interviewer. This occurred only twice throughout the transcription process.

Coding and Scoring Data

As the transcripts were completed, the researcher picked up the transcripts in electronic format from the transcriptionist. Using the software program HyperResearch, the researcher read each interview transcript, coding relevant comments into one of thirteen categories (the nine work environment factors identified in the rapid developer model and four other categories ["strategy", "involvement", "reality check", and "other"]).

Re-reading the comments related to a specific category, the researcher scored each of the nine categories as either being "present," "not present" or "not able to tell"

for each participant. The "not able to tell" was chosen when either the participant stated that he or she did not know the answer to the question asked, the appropriate question was not asked, or the answer was ambiguous.

Transcripts were "batched" so that the researcher did about three or four transcripts at a time. This process continued until all transcripts from the organization were categorized and scored and a matrix of scores by factors and by participants was completed. (Note that in doing the analysis for Pharma Health, the researcher had the interviewer contact several respondents again in an attempt to provide missing information and clarify discrepancies. In these cases, the follow-up interviews were audiotaped, transcribed and added to the analysis.)

At a later point in time, the researcher sorted the data by category. For example, all comments relevant to the Fitting Performance Specifications Factor were reviewed at the same analysis session. Not referencing the matrix completed earlier, the researcher read through the cases by category and again scored each factor as present, not present or not able to tell. Using this information, the researcher completed a second matrix.

At a later date, the researcher compared the two matrices and noted any discrepancies. For example, when recording the presence of a particular factor for respondent A the first time, the researcher may have scored the factor as being present. When scoring the same factor for respondent A a second time, the researcher may have scored the factor as not able to tell. This would be recorded as a discrepancy.

Table 1 shows the number of discrepancies found between the first scoring and the second scoring by both organization and by factor. For example, the left hand column shows the number of discrepancies found for the Fitting Performance Factor by organization and in total. In five discrepancies out of a possible 56 (or 9% of the time), there was a scoring discrepancy between how the researcher scored the presence of this factor the first time compared to how the researcher scored this factor the second time.

The overall percentage of discrepancies was 8%, or 39 discrepancies out of a total possibility of 504. The Candor and Community Factors were scored the most consistently with 0% discrepancy. The Effective Procedures/Workflow Factor was the most inconsistently scored with discrepancies occurring 21% of the time. The number of discrepancies was spread evenly among the three organizations with 12 discrepancies found in the Pharma Health data, 15 in Mega Power, and 12 in Uptime Inc.

The researcher investigated each discrepancy by re-examining the sorted information. Some discrepancies were further examined by reviewing the particular respondent transcript again. Based upon this review, the researcher made a third and final matrix for the organization.

Making Predictions

Before discovering who the managers selected as rapid developers, the researcher used the final matrix to make his own rapid developer predictions. The

Table 1
Scoring Discrepancies

1 Fitting Performance Specification	FACTOR									Total by Organization
	2 Adequate Resources	3 Effective Procedures/ Workflow	4 Appropriate Consequence	5 Quality Feedback	6 Competence	7 Continuous Learning	8 Candor	9 Community		
0	1	6	1	1	2	1	0	0	12	
3	4	0	5	2	0	1	0	0	15	
2	0	6	0	0	1	3	0	0	12	
5/56 (9%)	5/56 (9%)	12/56 (21%)	6/56 (11%)	3/56 (5%)	Total by Factor 3/56 (5%)	5/56 (9%)	0/56 (0%)	0/56 (0%)	39/504 (8%)	

researcher ranked respondents by the total number of factors perceived present. The researcher predicted that those individuals with the most total factors present were the rapid developers. Next, the researcher identified all individuals who perceived that the fitting performance specifications were present. The researcher predicted these respondents were rapid developers. Finally, the researcher predicted that all individuals whose perception of new performance specifications aligned with management's perceptions were rapid developers also.

The researcher recorded in a memorandum the research codes of the participants predicted by the three hypotheses to be rapid developers. The researcher sealed the memo in an envelope, delivered the envelope to the committee chair, and sent a copy of this memo to the organization sponsor.

Only after the predictions were made did the researcher obtain from the organization collaborator the list of the codes of the manager-selected rapid developers and the individuals of the comparison group. This process was completed in the same fashion for all three organizations.

Data Analysis

In this case study, both qualitative and quantitative analysis were utilized. The actual words of the respondents provide the thick, rich descriptions and proper context that give depth and meaning to responses and provide the power of qualitative data. The Research Findings Reports in Appendix Q give representative responses verbatim for all questions asked during the telephone interviews for each of

the three organizations. Comments that especially illustrate or illuminate a point are found in the Results Chapter in the Factor by Factor Findings.

Descriptive statistics were gathered for each of the three organizations. These statistics show the presence or non-presence of each of the nine work environment factors in the form of counts and percentages. In addition, any other interesting findings that were subject to counting were recorded. Once the data collection process and predictions were completed for all three organizations, cumulative descriptive statistics were prepared and the inferential statistical analysis begun.

How data are classified has a very important effect on how it can be analyzed. The data collected in this study are categorical, meaning that the data falls into a category based upon some defined characteristic. In this study the characteristic is "presence," either the characteristic is present or the characteristic is not present. Another consideration important to decisions about the type of the analysis is the selection of the appropriate measurement scale. Since the presence category cannot be ranked, it has no logical order, and data that has no logical order must be measured on a nominal scale.

A final consideration as to the appropriate analysis tool relevant to this study relates to the number of variables being considered. In this study, the statistical test must be sophisticated enough to take multiple variables into account. Logistic regression was selected as the inferential statistics test to answer the research questions and test the hypotheses because it best meets requirements by satisfying the restrictions and still meeting the analysis needs.

Parallel Nomination of Rapid Developers

An issue brought up early in the creation of the design was the concern that managers may not have the appropriate information to make good decisions in selecting rapid developers. For this reason a question was added to the interview to act as a reality check by encouraging the research respondents to select fellow members of their population as rapid developers. If a large enough number of the individuals selected by the respondents as rapid developers were interviewed to justify statistical analysis, the possibility was there to test other conjectures. Because of the findings from the initial tests, the data analysis was extended beyond the testing of the three hypotheses.

From the transcripts, the researcher provided the organization collaborator with the actual names of the individuals nominated by participants. The organization collaborator compared these names with the names of the individuals who were nominated as rapid developers, individuals chosen as rapid developers to be interviewed, and individuals selected by random sample to be in the comparison group. The organization collaborator noted all matches, converted the names back into the research codes that had been assigned by the interviewer, and faxed the information back to the researcher. The researcher then continued the statistical testing using logistic regression. All the tests done with the manager-selected rapid developer group were now performed with the respondent-selected rapid developer group. The only difference in the procedure was that the comparison group for the respondent-selected rapid developer consisted of the remaining individuals not

selected by the field, instead of the randomly selected comparison group used with the manager-selected rapid developers. This change was made because the randomly-selected group contained field-selected rapid developers. Comparing these two groups would not be appropriate. When these tests were done, the data analysis was completed.

Provide Feedback

The researcher prepared individual summaries for each of the three participating organizations. Labeled Research Findings Reports, Appendix Q contains the audience copy for each of these presentations. The researcher presented the findings to the organization sponsors and selected individuals invited by the organization sponsor. The researcher explained the purpose and design of the study, gave the findings, clarified and confirmed issues, and shared implications. All of the organization sponsors requested recommendations which the researcher provided. At the conclusion of each session, the organization sponsor committed to next steps based upon the findings.

Sampling Method

Using the Rapid Developer Selection Process Guide, the researcher helped managers come up with a list of rapid developers. From this group, a sample of ten was selected to participate in the research.

To determine the comparison group, the organization collaborator first started

with the entire population of individuals under study, then removed from the population: the ten rapid developers chosen for the study, any other individuals identified as rapid developers, and any individuals who had not been active in their position for a certain period of time (long enough to have experienced work life prior to the change). (Note that in Uptime Inc., two managers felt they were unable to determine rapid developers [both stated the reason as being that they were new to their positions].) All individuals who worked for these two managers were removed from the population from which the random sample was drawn.) From the remaining members of the population, the random sample was drawn. The Organization Collaborator Memo in Appendix M provides the exact verbiage used by the researcher in laying out sampling action steps.

Instrumentation

Because no existing instrumentation appropriate to this study was available, several instruments were developed. The Appendix contains an example of each instrument. In addition, Appendix C contains the Rapid Developer Work Environment Checklist which was developed to help determine if the work environment factors identified in the model were present in the participating organizations. The checklist contains questions that help define each factor and help determine the presence or absence of the factor. The checklist was used to help develop the Interview Question Guide (Appendix H and I) and also used by the researcher to help train the interviewer in asking questions that would elicit appropriate responses.

Here are descriptions of each instrument and its use.

Management Question Guide

Background information from the Organization Sponsor and two to three managers at each organization was gathered to: (a) increase understanding and context of the intervention, (b) learn management's perception of the situation, (c) discover managements' new expectations of performers, (d) establish credibility for later buy-in and support of findings, and (e) improve the quality of the interviews.

To make sure that all relevant information was gathered from each management member interviewed and to maintain consistency across organizations, the researcher developed a standard list of questions that constitute the Management Question Guide.

Rapid Developer Guide

A common process for determining the identity of rapid developers was developed to maximize the quality of selection and maintain consistency across organizations. The researcher developed a process guide (Rapid Developer Guide: Test, Appendix E), and tested it with a volunteer organization. Researcher observation and feedback from test site participants brought about changes in the process used with the research organization, leading to an enhanced Rapid Developer Guide: Meeting (Appendix F). The researcher used this format in determining the rapid developers in Pharma Health.

Since logistics would not allow getting the appropriate management personnel together in the other two organizations, the guide was modified (Rapid Developer Guide: e-mail, Appendix G). Back and forth e-mail communication among the researcher and managers helped to establish criteria specific to each organization and provide standard instructions for selection of rapid developers.

Participant e-mail

To encourage cooperation, candid input, and to make sure all prospective participants heard the same message, a standard e-mail (Participant e-mail), was developed by the researcher. The researcher recommended use of this e-mail message to the organization sponsors, who sent the e-mail out to the individuals in the samples.

Interview Question Guide

A common questioning approach was developed to gain: (a) the participant's perception of the presence of the five situational factors, (b) information that indicated the presence or non-presence of the four cultural factors, and (c) data from the participants that supported their perceptions.

The researcher developed an interview questioning guide (Initial Interview Question Guide, Appendix H), had it reviewed by two experts-both university professors and recognized performance improvement practitioners. and trained the interviewer in its use. The initial format was very open-ended and required

sophisticated capabilities to be successful. Upon reviewing the transcripts of the first two interviews in Pharma Health in which the questioning format was used, the researcher decided that the questioning format was not achieving its objectives. Upon studying the transcripts and reviewing the situation, the researcher determined that the cause of the error was that the interviewer did not have enough skill, conceptual knowledge, and situational understanding to successfully utilize the original questioning format.

The researcher revised the interview format to provide more structure (Final Interview Question Guide, Appendix I), and trained the interviewer in its use. The interviewer used this revised format for all of the remaining participant interviews (The two original participants were re-called and another interview conducted using the new format to fill in gaps from the initial interviews).

Research Team Members

In research that employs qualitative methods, both validity and reliability depend to some degree upon the individuals involved in conducting the research. Therefore, it is appropriate to think about the research team members as instruments of the study. Here are the steps taken to select, train, and coach members of the research team.

Interviewer

The interviewer was a Human Resource Development graduate student

nominated for the research by a faculty member familiar with his capabilities and performance. The researcher trained the interviewer to conduct the telephone interviews of research participants. The interviewer learned about good interviewing skills and techniques, and gained an understanding of the rapid developer work environment model (though not the research questions). The interviewer practiced interviewing in a training session with the researcher and received feedback from the researcher on strengths and challenges. The researcher briefed the interviewer about the organizations and the individuals under study and provided literature, audiotapes of the management interviews, and the researcher's typed summaries of those interviews.

After reviewing the transcripts of initial interviews, the researcher met with the interviewer and gave him specific feedback about strengths, areas to improve, and specific instructions. The interviewer incorporated these changes into the interviewing process.

The interviewer followed the participant questioning format for all interviews, only varying slightly from the exact sequence and wording to deal with situations specific to a given interview. Throughout the interviewing process the researcher and interviewer discussed specific issues and appropriate actions. Detailed information on the steps taken to train and develop the interviewer is found in the several supporting documents coded "Interviewer" in Appendix K.

Transcriptionist

The transcriptionist worked with the researcher on a previous project employing similar methods and the transcriptionist had demonstrated reliability, responsiveness, and accuracy of work. The transcriptionist was told of the overall focus of the study, but not the research questions. The researcher detailed the exact process that the transcriptionist was to follow, instructing the transcriptionist to transcribe all elements of the interviews relevant to the research word-for-word and to discuss any quality issues with the interviewer for clarification. In addition, the transcriptionist was asked to eliminate any identification of the respondent being interviewed, substituting a research code for the respondent's name. See the document labeled "Transcriptionist" for the specific instructions given the transcriptionist by the researcher.

Quality Control

The value of research depends upon the "goodness" or "trustworthiness" of the study in the eyes of the reader. The quality of research is made up of many dimensions. The five dimensions listed below are adapted and modified from Miles and Huberman (1994) and serve as the standards used by the researcher to think through the positive attributes of the study as well as its shortcomings.

Objectivity

Definition: Relative neutrality and reasonable freedom from biases. A near library of research evidence shows that people (researchers included) habitually tend to overweight facts they believe in or depend on, to ignore or forget data not going in the direction of their reasoning, and to "see" confirming instances far more easily than disconfirming instances (Nisbett & Ross, 1980-from Miles & Huberman).

Questions to answer: (a) Are prejudices understood and "controlled" to an appropriate degree, and (b) Are biases minimized to an acceptable level?

Challenges to objectivity: (a) Researcher: Seeing what he wants to see or shaping the analysis to meet preconceived ideas; (b) Interviewer: Hearing what he wants to hear and leading the interview in a certain direction; (c) Transcriptionist: Selectively leaving out information; (d) Respondents: Telling interviewer what they thought he wanted to hear or not providing accurate information for fear of retribution; and (e) Managers: Selecting rapid developer sample more on personal likes than on objective criteria.

Helping Factors:

- 1. The researcher did not know the names of any of the respondents and this anonymity continued throughout the project.**
- 2. The researcher did not know which respondents fell into which sample until the initial analysis was completed.**
- 3. The researcher was aware of his biases and continually reminded himself of this throughout the research.**

4. The interviewer did not know which individuals fell into which sample nor did the interviewer know the research questions of the study.

5. The interviewer had no prior experience with any of the three organizations, nor much experience with their type of business.

6. The transcriptionist did not know which individuals fell into which sample, nor did the transcriptionist know the research questions of the study.

7. Respondents were told that the results of the study would have value to their organization and directly or indirectly to them.

8. Respondents were assured that their individual comments were confidential.

9. The researcher put the managers through a process to improve the probability that their selection of rapid developers was based upon objective criteria.

Hindering Factors:

1. None of the managers making the rapid developer selection had extensive knowledge of all members of the population.

2. Very limited performance data were available to objectively support the selection process.

3. The researcher had past experience with all three organizations (quite extensive with one) and hence had preconceived ideas.

Reliability

Definition: The consistency and reasonable stability of the process of the study over time and across researchers and methods.

Questions to answer:

- 1. Are the methods and process employed dependable?**
- 2. Is the research auditable?**
- 3. Would the same researcher get the same findings at a different time?**
- 4. Can a different researcher replicate the study?**
- 5. Would a different researcher get similar findings?**

Challenges to reliability: (a) not defining constructs explicitly enough; (b) not utilizing the same approach to analyze for all cases; (c) not providing adequate information so that the study can be duplicated; and (d) status of the researcher during analysis: degree of physical fatigue, mental state, etc.

Helping Factors:

1. Auditability: (a) all interviews of managers and organization sponsors were audiotaped; (b) all interviews of research respondents were audiotaped and transcribed word-for-word; (c) all copies of notes, summaries, research thoughts, etc. were retained; (d) the researcher maintained a log of all activities that occurred during the project; and (e) the researcher used commonly accepted methods throughout the study.

2. Dependability: (a) the same instruments were used for all three organizations; (b) the same research team was in place for all three organizations performing the same tasks in the same way; (c) the same procedures were followed for all three organizations; and (d) the analytic procedures used by the researcher were established with reliability in mind, e.g., batching of analysis of transcripts analyzing

information by both individual and category to determine discrepancies.

Hindering Factors: (a) instruments were "home-made", and (b) no peer review occurred.

Internal Validity

Definition: How well the findings accurately represent the social phenomenon to which it refers—truth value (Hammersley, 1990, from Miles & Huberman).

Questions to answer: (a) Do the findings make sense, (b) Are they credible, and (c) Do the people studied consider the findings authentic?

Possible threats to internal validity: (a) quality of the model, instruments, research team, the analysis; (b) ability of the management to identify rapid developers, and (c) openness/truthfulness of the participants.

Helping Factors:

1. The model was well supported by the literature and passed the scrutiny of recognized experts.

2. The researcher is an experienced practitioner with demonstrated competence.

3. The interview questions were reviewed by experts, tested, and modified to yield responses reflective of the information sought.

4. The interviewer was an HRD graduate student recognized for his capabilities. The interviewer was trained by the researcher, observed during practice, and given feedback during training. The researcher reviewed transcripts and provided

the interviewer with feedback about the quality of the interviewing as well as suggestions for improvement.

5. The transcriptionist transcribed the interviews word-for-word. Minor questions were noted in the finished transcripts and major issues were referred back to the interviewer for review and clarification.

6. Respondents were told that the results of the study would have value to their organization and directly or indirectly to them. They were assured that their individual comments were confidential.

7. The design of analysis was reviewed by experts. All records are available to conduct an audit to obtain outside perspectives of appropriateness.

8. A "reality check" was put in place to support/challenge the selection of the rapid developer sample.

9. The findings were presented and accepted by the research organizations.

Hindering Factors:

1. No triangulation (e.g., observation of participants, link to performance data).

2. The researcher was not the interviewer: loss of meaning by not hearing interviews (tone, inflection, etc.) and not being able to clarify, confirm, or expand the information gathered.

3. Uptime Inc. was not undergoing as much change as the other two organizations. Many of the respondents stated that the change was very minor. Therefore, in this case the study may have been looking more at high-performers than

rapid developers.

External Validity

Definition: The degree to which the findings can be generalized to other situations.

Questions to answer: (a) Do the conclusions have any larger export, (b) Do they "fit", (c) Are they transferable to other contexts, and (d) How far can they be generalized?

Challenges to external validity: (a) small number of cases, and (b) similarity/difference of cases to other organizations.

Helping Factors: (a) chose 3 different job classification-similar findings make a case for broader transferability, (b) all 3 organizations undergoing change-describes the majority of organization, (c) the issues/solutions of the three organizations are very similar to the situations of many organizations, (d) detailed descriptions of cases allow other organizations to compare their organization to research sites and decide for themselves the similarity/relevancy of the study to their situation, and (e) large enough numbers to allow for some inferential statistics to be performed.

Hindering Factors: (a) hypotheses not supported, and (b) organizations with different issues, setting, players, etc., may have difficulty aligning with the findings.

Utilization

Definition: The application of the research findings to help solve immediate

problems and stimulate further research.

Questions to answer: (a) Does the study have value, (b) Does the study address important organizational issues, (c) Will the organizations studied take action based upon the findings, and (d) Will other researchers build off the study?

Challenges to utilization: (a) demonstrating enough perceived benefit to warrant action, and (b) providing suggestions that are clear and succinct enough for action.

Helping Factors:

1. The research addressed areas seen as critical business issues of the three participating organizations.
2. The research topic is being recognized as important.
3. To the researcher's knowledge, no similar research has been conducted.
4. Personal presentations were given to all three organizations outlining recommendations on how to best utilize the findings.
5. All three organizations committed to next steps in using the information.

Hindering Factors:

1. Rapid learning and development is a concept not familiar to most managers and may be difficult for them to assimilate into their repertory of behaviors.
2. Problems uncovered by the research were systemic and not susceptible to quick fixes--therefore it would take major commitment to bring about significant change.

This section demonstrated that the quality of a research project must be viewed

from several dimensions and that all studies have certain strengths and certain weaknesses. From the early stages of overall design to the end of data analysis, steps were taken to improve the quality of the study by minimizing bias, increasing reliability, enhancing internal and external validity, and improving the likelihood that the study findings will be applied.

This chapter started with a concise overview of the research design, followed by a description of the three participating organizations. Implementation procedures were reviewed and the sampling process explained. The instrumentation section provided the rationale for instruments and how they were developed and used. Finally the standards for quality control were presented and explained.

CHAPTER IV

RESULTS

This chapter starts with a brief review of the analysis process, then looks at findings by factor, followed by the distribution of the presence of factors, the testing of hypotheses, and, finally, additional tests that were completed. Note that the Appendix contains several charts that graphically demonstrate additional information including comparisons for the participating research organization. In addition, Appendix Q contains the research findings reports as presented to the Organization Sponsor and managers of the participating organizations. In these reports representative respondent comments are given for all questions asked during the interviews. Reviewing these documents will provide more in-depth qualitative information specific to each organization.

Review of the Analysis Process

Descriptive statistics were gathered for each of the three organizations with an overall total that shows the presence or non- presence of each of the nine work environment factors in the form of counts and percentages. Logistic regression was used as the inferential statistics test to answer the research questions and test the hypotheses. Also, logistic regression was used to test additional queries beyond the original hypotheses.

Factor-by-Factor Findings

In this section the nature and definition of the factor is reviewed, then the questions used to address the factor are explained. Next, results of the factor findings are summarized, and any salient differences among the three organizations on the factor are explained. Occasionally, actual comments of research respondents are included when they help to illuminate findings.

Fitting Performance Specifications

The fitting performance specifications factor is considered to be a central part of the work environment. The underlying rationale is that the better people understand expectations, where they come from, and why they are important, the better people will perform. In addition, good performance specifications should align with other expectations and support business processes and goals. Logically, the odds of people exhibiting the correct behaviors that lead to organization results increase dramatically when they understand the organization's expectations of them.

The fitting performance specifications factor is present when:

- 1. The new performance specifications are clear.**
- 2. The new performance specifications are realistic.**
- 3. The new performance specifications align with other expectations.**
- 4. The new performance specifications support the business process/
strategy.**
- 5. The learner's understanding of the need for change aligns with senior**

management's understanding.

Several questions were asked regarding the fitting performance specifications factor. Here are the questions listed in the order in which they were asked along with the rationale behind them.

1. What are (organization name)'s expectations of you? What else? Any other expectations? This question was asked to get a basic understanding of the respondent's view of his or her job responsibilities and expectations and also to provide a comparison point concerning job changes.

2. It sounds like lots of things have changed these past _____. Which of these expectations are different than in the past? How so? Any other changes in what you are supposed to do? This question was asked to learn the respondent's perception of both the type of changes as well as the magnitude of the changes. While conducting the background information for each organization, the researcher noted the major changes in expectations stated by the organization sponsor and the managers who were interviewed. The researcher summarized this information and fed it back to the organization sponsor for confirmation. Prior to the analysis, the researcher decided that expectations would be considered to be aligned when respondents mentioned a certain proportion of the new expectations. The researcher determined these proportions as four out of eight for Pharma Health, two out of the three for Mega Power, and two out of four for Uptime Inc. A complete listing of these new expectations is found in the organization profiles in Appendix A.

3. Are these new expectations clear? Why do you say that? Are the new

expectations realistic? Say more. The researcher used these two questions as the means of determining if the Fitting Performance Specifications Factor was present or not present. The factor was considered present when respondents responded affirmatively to both of these questions.

4. What's the reason for all the changes anyway? In the background research for each organization, the researcher discovered the main business reasons the organization sponsor gave for the changes. The response to this question was used by the researcher to determine whether the respondents' understanding of the strategic rationale for the changes aligned with senior management's thinking.

Table 2 presents respondent's perception of the presence of the fitting performance specifications factor by organization and overall total. Five (5) of 55 respondents (9%) said they did not know what the performance specifications were.

Table 2
Respondent Perceptions of the Presence of the Fitting
Performance Specifications Factor.

<u>Didn't know</u>	<u>Little/No change</u>	<u>Clear</u>	<u>Realistic</u>	<u>Fitting</u>
<u>Pharma Health</u>				
1/20 (5%)	4/20 (20%)	11/20 (55%)	15/17 (55%)	11/20 (55%)
<u>Mega Power</u>				
2/19 (10%)	1/19 (5%)	13/19 (68%)	9/19 (47%)	6/19 (32%)
<u>Uptime, Inc.</u>				
2/16 (12%)	11/15 (69%)	13/16 (81%)	10/14 (71%)	10/16 (62%)
<u>TOTAL</u>				
5/55 (9%)	16/55 (29%)	37/55 (67%)	34/50 (68%)	27/55 (49%)

Twenty-nine percent (29%) of the total respondents said there was very little or no change in the expectations of them. About 2 out of 3 respondents felt that performance specifications were clear and about 2 out of 3 felt that performance specifications were realistic. Overall, almost 1/2 of all participants felt that expectations were both clear and realistic, and thus categorized as "fitting". Conversely this also demonstrates that more than 1/2 of all the respondents in this study felt that performance specifications were not clear and realistic.

In the development of the questions, the logic used for determining the presence of this factor was that respondents would first have to make the judgment that expectations were clear before they could determine if the performance specifications were realistic. Surprisingly, some respondents thought that performance specifications were realistic but not clear. The Pharma Health data demonstrates this point with only eleven individuals stating that expectations are clear, and fifteen respondents feeling that expectations are realistic.

It is important to note that the majority of Uptime Inc. participants felt that there was little or no change in their expectations. In fact, researcher review of the transcripts demonstrated that none of the Uptime Inc. respondents felt a major change had occurred in the expectations of them. Since later questions in the interview were based upon the premise of changing expectations, the interpretations and responses from Uptime Inc. respondents may be from a different vantage point than participants from the other two organizations. These three quotations are representative of their comments:

Well we reorganized and merged two offices and the only thing that affected me was my area got bigger, my area of responsibility, customers, geographical wise, but other than that everything remained pretty much the same.

Well, yes a little bit. You know essentially because the management has got more reports and his time is limited, and so therefore we must take proactive in doing as much with little management help.

Not really. It's been pretty much transparent to me.

Respondents' comments were analyzed to determine the number of individuals whose responses about changes in their performance expectations aligned with management's new expectations of them. The researcher determined that only 4 out of 56 respondents provided information that aligned with management's new expectations. The breakdown for alignment was 1 out of 20 for Pharma Health; 3 out of 19 for Mega Power; and 0 out of 17 for Uptime Inc. Only 7% of all the respondents in this study understood management's performance expectations of them.

Table 3 shows respondents' perceptions of the strategic reasons for all the changes occurring in their organizations. The right-hand column reveals that about one half of all respondents gave answers that aligned with management's rationale, thus demonstrating that they understood the strategic thinking behind the changes. Uptime, Inc. respondents were well below this average with only 18% providing responses that aligned with management's.

Overall, 18% of those asked this question responded that they didn't know the reason for the organization changes, with 29% of Uptime Inc. respondents stating they didn't know. This makes sense in light of these Uptime Inc. respondents feeling

Table 3

**Respondent Perceptions of the Strategic Reasons
Behind the Organization Changes**

Didn't Know	Volunteered Negative Remarks/Questions	Response Aligned with Management
Pharma Health		
3/19 (16%)	4/19 (21%)	12/19 (63%)
Mega Power		
2/18 (11%)	11/18 (61%)	11/18 (61%)
Uptime, Inc.		
5/17 (29%)	0/17 (0%)	3/17 (18%)
TOTAL		
10/55 (18%)	15/55 (27%)	26/54 (48%)

that there was no change or very little change in what they are supposed to do. It would be difficult for them to give a plausible response to a question asking about the reason for a change if they felt that a change had not occurred.

No prior plans were made to measure the negative response to this question. However, the large number of negative comments this question elicited caused the researcher to quantify these results. Twenty-seven percent (27%) of all respondents reacted to this question by either volunteering negative remarks about the changes or seriously questioning the quality of the change decision. This question seemed to especially evoke strong emotion within Mega Power, with 61% volunteering questions or negative remarks about the changes. After two years, many Mega Power supervisors still strongly resist the change. Here are three Mega Power

respondent comments that represent those feelings:

We are preparing our company for the 21st century and a dereg of the electrical business. That's what we've been told. Good or bad, I don't know.

Originally the restructuring was to reduce the number of directors and become more efficient and more competitive. Since that time, they are back up to the number of directors they had before if not more.

...they wanted to become a process-driven organization was the reason for the reorganization. And make sure the right person got into the right position. Whether that was accomplished or not, I think is a little suspect.

None of the Uptime Inc. respondents volunteered any negative comments or questioned the changes. Again, this makes sense realizing their perception that little or no change had occurred. Little emotion would be expected toward something perceived as an insignificant occurrence.

Adequate Resources

People need resources to meet the expectations of their jobs. Resources most important to job accomplishment are information, staffing, time, and tools. Ideally, these resources should be available immediately whenever needed and packaged appropriately to effectively and efficiently complete required tasks. The adequate resources factor is present when:

- 1. Performers have the information they need when they need it to meet new expectations.**
- 2. Performers have the necessary staffing to meet new expectations.**
- 3. Performers have enough time to meet new expectations.**
- 4. Performers have the appropriate tools to meet new expectations.**

Below are the questions asked about adequate resources along with the rationale for why they were asked.

1. What resources have been provided to help you meet your new expectations? What else? This open-ended question was asked to discern the respondent's perception of the resources made available by their organization to support the new expectations of them.

2. (a) Are resources adequate? Explain. Give example.
- (b) Do you have the information you need when you need it? What information do you need?
- (c) Do you have necessary staffing (manpower) to get the job done? Say more.
- (d) Do you have enough time?
- (e) Do you have the appropriate tools? What tools do you need?

These questions were asked to learn how respondents felt about the main resources available to that make up this work environment factor.

3. How about training? The background information gathered by the researcher showed that both Pharma Health and Mega Power had already provided much training and both planned to provide more. For this reason, training was specifically asked about instead of being considered as just a part of tools.

4. Overall, are resources adequate?

This question was asked as the means of determining if the Adequate Resources Factor was present or not present. The factor was considered present

when respondents answered affirmatively to this question.

Table 4 shows respondents' perceptions of the presence of the Adequate Resource Factor. In total, 69% of those responding said that the resources they had available were overall adequate for them to do their job. Looking at the elements that comprise adequate resources, tools scored the highest with 72% of respondents saying that they had appropriate tools, while only 35% said that they had enough time

Table 4

Respondent Perceptions of the Presence of the Adequate Resources Factor

Information	Staffing	Time	Tools	Training	Overall Adequate
Pharma Health					
11/18 61%	9/18 50%	0/4 0%	12/19 63%	8/13 62%	11/19 58%
Mega Power					
8/15 53%	6/18 33%	4/17 24%	10/14 71%	6/12 50%	11/19 58%
Uptime Inc.					
7/11 64%	10/16 62%	7/10 70%	14/17 82%	9/14 64%	16/17 94%
TOTAL					
26/44 59%	25/52 48%	11/31 35%	36/50 72%	23/39 59%	38/55 69%

to do their job right. Uptime Inc. scored higher than the other two organizations in all categories and had a very high 92% of their respondents saying that, overall, resources were adequate.

Scoring this factor brought out some interesting insights as to how people think. It was not surprising for respondents to state strongly that one or two or sometimes even three resources were inadequate. Yet when asked later in the conversation, "Overall, are resources adequate?" they responded yes.

Effective Procedures/Workflow

For people to exhibit new behaviors, the proper steps must be in place that support their work efforts. Anything that interferes with people performing their high-priority tasks must be eliminated or at least minimized. Finally, for learning transfer to occur, people need ample opportunities to apply the new behaviors in the work setting.

This factor is present when: (a) job procedures and workflow are logical for the new tasks, (b) there are ample opportunities to perform new tasks, and (c) the tasks can be done without interference from other tasks.

Here are the questions asked concerning the Effective Procedures/Workflow factor and the rationale behind the questions.

1. It sounds like you have to operate differently now than in the past. Is there a specific process or special procedures laid out that you are supposed to follow? If yes...how does it work? This question was asked to determine if procedures had been

developed and implemented.

2. Are the job procedures and workflow logical for the new way of ____? If procedures had been put in place, then this question elicits the perception of the respondent as to how well the procedures work.

3. Are there ample opportunities to operate in the new way? This question provides answers relevant to adequate opportunity.

4. What interferes with you getting the job done right? Who? When? Where? Why? This question assumes that there is interference and yields responses indicating under which situations the interference occurs.

5. Can your job be done without interference from other tasks? This is the question used to determine the presence of the Effective Procedures/Workflow factor. A positive response indicated presence.

Thirty-six percent (36%) of Mega Power participants said there were specific procedures in place while 100% of other two organizations stated there were specific procedures in place. Seventy-five (75%) of Mega Power respondents and 94% of Uptime, Inc. respondents said that procedures and workflow were logical. Pharma Health participants were not asked this question. Seventy-one (71%) of the Mega Power respondents said there were ample opportunities to supervise in the new way while, 18% said they didn't know what the new way of supervising was. Pharma Health and Uptime Inc. participants were not asked this question.

No particular issues or items were recorded as being the greatest interference to doing work. In regards to the question asking what interferes, the responses varied

for all three organizations. Examples of responses included: too many meetings, shortage of people, inadequate equipment, employee attitude, shortage of time, volume of work, too large a geography to work, and so on.

Regarding the question, "Can the job be done without interference from other tasks?", 24% of Pharma Health respondents answered yes with 32% for Mega Power, and 79% for Uptime Inc. However, for both Mega Power and Uptime Inc., "natural interference" plays an important part in their job since they are actively involved in repairing damage caused by severe weather. Because of this, there may have been some differences in how this question was interpreted by respondents. The phrases used when answering this question led the researcher to believe that this question was interpreted differently by respondents and therefore the quality of this question may be somewhat suspect.

Appropriate Consequences

Consequences play an important role in the achievement of expectations. Along with the intrinsic consequences that the individual brings with him or her to the job, extrinsic consequences that impact behavior are found in the work setting. The appropriate positive consequences reinforce desired behavior while the appropriate negative consequences stifle undesired behavior. This factor is present when: (a) consequences are aligned to support the new desired performance, (b) consequences align with other performance expectations, (c) consequences are timely, and (d) consequences are meaningful to the performer.

Here are the questions designed for the Appropriate Consequences Factor along with the reasoning behind the questions.

1. (a) What are the positive consequences to you when you achieve job expectations? Is that meaningful to you? Any other positive consequences (rewards or recognition)? Are they meaningful?
- (b) What are the consequences to you when you don't accomplish your expectations?
- (c) Is that meaningful to you? Any other negative consequences? Are they meaningful?

These questions were meant to learn of the respondents' thoughts about what consequences were in place and how they felt about them.

2. Are consequences aligned to support the new desired ways of supervising? Say more. Meaningful consequences could be in place, yet not support new expectations. This question was designed to address this point.

3. Overall, are consequences appropriate? This question was the one designated to determine the presence of the Appropriate Consequences Factor. An affirmative response meant that the factor was considered present for that respondent.

Table 5 shows respondents' perceptions of the presence of the Appropriate Consequences Factor. Nine percent (9%) of respondents said they did not know what consequences were in place. More than one third of those responding said that there were no rewards or recognition in place in their organization. This was especially true of Mega Power, with 63% of their supervisors stating that there were no rewards

Table 5
Respondent Perceptions of the Presence of the Appropriate Consequences Factor

Didn't Know	Said There Were No Rewards or Recognition	Positive Consequences Are Meaningful	Negative Consequences are Meaningful	Consequences Support New Way of Operating	Overall Appropriate
		Pharma Health			
3/20 (15%)	4/20 (20%)	4/6 (67%)	4/6 (67%)	1/5 (20%)	7/19 (37%)
		Mega Power			
2/16 (12%)	12/19 (63%)	6/18 (33%)	6/18 (33%)	6/17 (35%)	6/18 (33%)
		Uptime, Inc.			
0/17 (0%)	4/16 (25%)	10/17 (59%)	11/16 (69%)	Didn't Ask	13/17 (76%)
		TOTAL			
5/53 (9%)	20/55 (36%)	20/41 (49%)	21/40 (52%)	7/22 (32%)	26/54 (48%)

or recognition. About one half of the respondents felt that positive consequences were meaningful and about one half felt that negative consequences were meaningful. Less than one third felt that the consequences in place supported the new way of operating. Overall, 48% of the respondents felt that consequences were appropriate. Positive responses from Uptime Inc. were considerably higher than the other two organizations at 76%.

Questions about consequences triggered a lot of negativity as partially indicated by the low scores discussed above. Reactions to these questions brought out statements that seemed to reflect cynicism and doubt. Here are some verbatim comments from Mega Power respondents that demonstrate this negativity in terms of positive and negative consequences:

(positive consequences)

There's not a lot of recognition provided.

External rewards? (laughs)

I guess just a personal satisfaction that I have that I've done the job well.

(negative consequences)

Minimal..But I watch others who do not (perform), and are constantly talked about, but nothing happens.

Other than personally, there's not a lot of ramifications.

Unfortunately, I don't think there are any right now. I don't think they've got to that point yet.

Quality Feedback

Feedback is important for individuals to gauge their performance in respect to goals and expectations. Feedback is especially important when people are experimenting with new behaviors. Quality feedback reinforces desired behavior and reduces non-productive behavior. Without good feedback, individuals are left to guess how well they are doing and determine whether corrective action is needed or not. This factor is present when: (a) feedback is relevant, (b) feedback is accurate, (c) feedback is timely, (d) feedback is specific, and (e) feedback is easy to understand.

Below are the questions used to elicit respondent perceptions about the quality of the feedback they receive.

1. What feedback do you receive on how well you are meeting expectations?
How? From whom? What other feedback? This question was asked to learn the respondents general thoughts about the feedback they receive.

2. (a) Is this feedback relevant?
- (b) Is the feedback accurate?
- (c) Is the feedback timely?
- (d) Is the feedback specific?
- (e) Is the feedback easy to understand?

There are five attributes of quality feedback. These questions were developed to get specific responses on each of the five attributes.

3. Overall, is the feedback of adequate quality? This is the question used to determine the presence of the Quality Feedback factor.

Table 6 shows respondents' perceptions of the presence of the Quality Feedback factor. Slightly more than one half of the respondents indicated that the feedback was perceived as relevant, accurate, timely, specific, and easy to understand. Overall, 53% felt that the feedback they received was adequate. The responses of Mega Power and Uptime Inc. were very similar across the dimensions of quality. Pharma Health scored lower in every category, with an especially low 28% stating that, overall, consequences were adequate.

Reading through the responses concerning the quality of the feedback received revealed no extremely positive comments from any of the respondents. Reactions mainly tended to be negative as revealed by these comments:

What feedback?

I think it would break our boss' arm to ever tell us we did a good job.

We usually hear it when we're doing bad, not when we're doing good.

I never get a pat on the back for doing a good job. And I never get scolded for a screw-up, like I said, that doesn't happen often. That's the good thing.

For the five situational factors discussed above, the presence or absence of a factor was determined by asking a question or questions directly about the factor, such as "Overall, is the feedback of adequate quality?" This is possible and appropriate since respondents can relate specific examples from their personal experience to make this decision. Determining the presence or absence of factors representing culture is a little more sophisticated. Since culture is the underlying set of shared assumptions and beliefs of an organization, culture is not something that is readily apparent to its members. It is very difficult for individuals to respond to

Table 6
Respondent Perceptions of the Presence of the Quality Feedback Factor

Relevant	Accurate	Timely	Specific	Easy to Understand	Overall Adequate
		Pharma Health			
8/17 (47%)	7/15 (47%)	4/10 (40%)	3/10 (30%)	7/13 (30%)	5/18 (28%)
		Mega Power			
12/18 (67%)	12/19 (63%)	10/19 (53%)	9/16 (56%)	11/16 (69%)	11/16 (69%)
		Uptime, Inc.			
11/16 (69%)	7/14 (50%)	9/13 (69%)	11/16 (69%)	11/13 (85%)	11/17 (65%)
		TOTAL			
31/51 (61%)	26/48 (54%)	23/42 (55%)	23/42 (55%)	29/42 (64%)	27/51 (53%)

something that is at an unconscious level. Therefore, regarding cultural factors, questions that elicit responses representing the presence or absence of the factor are more effective. This approach to questioning is used in all four of the following cultural factors.

Competence

The realities of global competition are driving the need for productivity. Organizations no longer tolerate individuals who do not contribute to the success of the enterprise. No longer will politics be considered more important than performance. Although hard work is often still seen as both admirable and desirable, it is being placed secondarily behind smart work that produces the same or greater results with less effort. This factor is present when:

1. Results are valued more than hard work.
2. Performance is more important than political connections in getting recognized and rewarded.
3. Individuals take personal responsibility for their actions.
4. There is tolerance of unusual style or behavior of the people who do good work.

Below are the questions used to help determine the presence of this factor.

1. What is the secret of getting ahead at (organization name)? This question was asked to learn respondents' feelings about the main contributors of success in their particular organization.

2. Is performance more important than political connections in getting recognized and rewarded? This question was designed to specifically elicit an answer to this question of performance versus politics. This question was used to determine if the Competence Factor was present or not.

3. In (organization name), (worker named by position) A works 70 hours a week and gets very good results. B works 40 hours a week and gets outstanding results. Which will be seen as the more valuable? Why? This question attempted to explore perceptions concerning what the organization values when it comes to hard work or smart work.

The question regarding the secret of getting ahead drew a variety of responses. Thirty-five percent (35%) of Pharma Health participants said they didn't know the secret to getting ahead. Twenty-nine percent (29%) of the Pharma Health responses mentioned politics as the major contributor, and only 29% gave responses indicating that performance was a factor. Forty-two percent (42%) of the Mega Power respondents mentioned hard work, 26% mentioned education, and 16% said they didn't know. Only 16% gave responses that indicated performance. Forty-one percent (41%) of Uptime Inc. participants said that you had to move to headquarters to get ahead; 35% expressed serious doubt that you could get ahead, and only 24% made statements about performance being a factor in getting ahead.

The question that forced respondents to choose whether performance or politics was more important to getting recognized and rewarded produced results that align with the above findings. The percentage of those who felt performance was

more important than politics in getting recognized and rewarded included 38% for Pharma Health, 36% for Uptime Inc., and 28% for Mega Power. Overall, only about one in three felt that performance was more important than politics in getting recognized and rewarded.

Regarding the question comparing hard work or smart work, respondents overwhelmingly felt that their organizations valued smart work more than hard work. One hundred percent (100%) of Mega Power and Pharma Health respondents said that individuals who worked the outstanding 40 hours was the more valuable. Seventy-seven percent (77%) of Uptime Inc. respondents selected the 40-hour worker.

Here are some comments about the secret of getting ahead taken from Mega Health that are also representative of all three organizations:

I think basically being a good employee, doing that little bit extra, being involved. I think it's a great company to get ahead if you do the things that you should do and something a little extra.

(laughter) (Long pause) I don't know if there is any secret to getting ahead.

Right now the way the reorg went, I don't think there's too many people around here that want to get ahead in this.

Ha! First of all, to be focused, to be knowledgeable, to be indispensable, to be multi-task.

I think it is probably the same as anyplace. Number One you have to be you know a hard worker, and your name's got to be out there. You've got to be recognized. You know, I think you have to be willing to take on additional assignments and responsibility.

Continuous Learning

Continuous learning is an organizational mindset that recognizes and values the need for regular, on-going improvements on the part of all organization members. Effective continuous learning leads to both incremental gains and brand-new innovations. Organizations with continuous learning ingrained into their culture view learning as a natural part of performance and contribution. Mistakes are not only tolerated but expected as a natural part of learning. This factor is present when: (a) continuous improvement is valued; (b) innovation is valued; (c) methodologies are in place to support both continuous improvement and innovation; (d) systems are in place to capture, store, and transfer knowledge; and (e) quality failure is accepted.

Questions used to explore respondent perceptions about Continuous Learning included:

1. What percent of your time dedicated to work is spent on personal development? If organizations value continuous learning, then they would devote considerable time to it. This question was asked to find out roughly how much time individuals were taking for personal growth and development.

2. If someone comes up with a new idea, implements it and it fails completely, what reaction from the organization would you expect? Do you have an example? This is the question used to determine the presence of the Continuous Learning Factor. It was felt that organizations that accepted failure would be demonstrating a strong attribute of continuous learning.

Responses ranged from 0% to 100% on the question asking how much work time is spent on personal development activities. Averages by organization were 6% for Pharma Health, 23% for Uptime Inc., and 24% for Mega Power. It was obvious that few of the respondents had considered this question before. Many respondents did calculations, on the spot, trying to come up with what they thought was a realistic percentage. Many had trouble differentiating between personal development and what was just part of the job. Their personal interpretation helped account for the wide range in responses.

Regarding the question of how the organization responds to failure, most gave responses indicating that as long as it had been well thought out and good effort applied, their organization would accept failure without negative ramifications. Sixty-two percent (62%) of Uptime Inc. respondents, 69% of Mega Power, and 94% Pharma Health, gave responses that indicated that quality failure was acceptable.

Note, though, that this question seemed to be difficult for many Uptime Inc. respondents. Several respondents indicated that fairly rigorous management approval would need to occur before any implementation would take place, indicating that the "unapproved" actions of an empowered employee was out of the cultural norm for this organization. This qualifier could indicate that Uptime Inc. would score lower on this factor than the existing numbers indicate.

Candor

Candor is present in organization culture when people routinely question and

challenge the unsupported talk and actions of all individuals whatever their rank or base of power. Organizational candor means that truth is much more important than saving face and that trust evolves through open and honest dialogue and reflection.

This factor is present when:

1. People are frank even when ideas directly confront those of superiors.
2. People challenge the unsupported talk and actions of others.
3. People routinely stop to reflect about what they are doing and why.
4. Exemplary performers are regularly observed and analyzed to help fuel improvement efforts.

Below are the two items used to explore the presence of the Candor factor in the culture of the organizations under study.

1. Are people routinely asked to reflect on what they are doing and why?

This question was meant to explore one important element of Candor--reflection.

2. Let's say that a fellow (worker in same position as interviewee) had just attended a seminar recommended by (the organization sponsor). The (worker) felt it was a complete waste of time and money. As luck would have it, on the return home, the _____ finds himself sitting by (the organization sponsor) on the airplane. Would he/she volunteer that the training was a waste of time? If yes, how would (the organization sponsor) react? If no, why? What would the _____ do if he/she was asked specifically by the (the organization sponsor) how the training went?

This scenario was asked to elicit how peers would really act in a situation calling for candor. This questions was used to determine the presence of the Candor

factor.

Twenty-one percent (21%) of Mega Power respondents, 37% of Pharma Health, and 41% of Uptime Inc. said that people are routinely asked to reflect on what they are doing and why. Overall, 33% responded positively to this questions. Conversely, two-thirds of all respondents did not feel that reflection was an ongoing part of their organization.

Regarding the question asking if peers of the respondent would volunteer bad news to an executive of their organization, the responses were highly consistent across all three organizations. A common response sequence to the scenario outlined above went something like this:

Participant: It's important that people are open and honest with senior management.

Interviewer: I understand. Now, in the scenario I just gave you, what would the average supervisor do?

Participant: Well, I'd probably tell him, in a tactful way.

Interviewer: Fine, now what would the average supervisor do in this situation?

Participant: No way. There is no way that the average supervisor would volunteer negative information to senior management.

Even though they understood the importance and professed the need to do so, only 16% of the Mega Power respondents said that the average Mega Power supervisor would volunteer the bad news, with 12% of Uptime Inc. respondents answering positively. None of the Pharma Health respondents felt that their peers would volunteer potentially negative information to the organization executive. In their own words, here are some typical responses:

I'd say even if it was a waste of time, probably 80% of them--85% would not say that. Fifteen percent would be forthright.

Most of them I know would. (How would ___ react?) He might not agree with you, but I think he'd listen.

I don't want to say that they are intimidated necessarily, but they are apprehensive. They are not comfortable in sharing anything but good news, if not no news at all.

Well, I know ___ pretty good and I worked for him for a period of time, so I would myself, I would tell him, yes. He's open to that kind of stuff. (How about the average ___?) Probably not. (Why not?) Well because everybody's probably concerned about reprisals.

Community

In this time of major change, people need the support and fellowship of other individuals at work. Shared commitment helps individuals to take risk knowing that others will help them. This factor is present when:

1. People routinely support people who ask for help.
2. People think of their roles in terms of the larger organization.
3. People are involved in the change effort and feel that they can influence what happens.
4. Social interactions are encouraged.

Questions used to learn more about respondent's feeling of community included:

1. If you needed help, are there three people that you would feel comfortable calling and asking for their support? This question was used to determine the presence of the Community Factor.

2. There is a lot of talk going on about working in teams. In reality, how well are people actually working together? Example. Both Pharma Health and Mega Power had put major emphasis on a focus toward teams. This questions was an attempt to determine how well this element of the change process was going.

Response to the question that asked if there were three people whom respondents would feel comfortable asking for their support received very positive answers across all three organizations. Positive responses were 88% for Uptime Inc., 90% for Mega Power, and 100% for Pharma Health.

These are the findings for the question that asked how well the teams were really working: Thirty-two percent (32%) of the Mega Power respondents said that teams are working well, 32% said they were not working well, and the remaining respondents gave answers somewhere in between. Fifty-nine percent (59%) of Pharma Health respondents said that teams were working well, with only 6% saying they weren't working well and 18% said that the teams were working so-so. Eighteen percent (18%) volunteered that the teams were getting better. Also, 35% of the Pharma Health respondents volunteered statements something like "We're working well, but I've heard other teams are having problems."

Seventy-one percent (71%) of Uptime Inc. respondents said that teams worked together well. However, Uptime Inc. respondents rely much less on teams to perform their jobs than the other two organizations. In addition, when and how they work in teams has not changed. Therefore, comparing their responses to those of the other two organizations may not be appropriate.

Involvement

Although not a core element of the research, questions were asked to understand respondents' perceptions of who was involved in the decision-making process for some of the work environment factors in regards to the organizational changes. Involvement of the members of the target of learning interventions has been indicated to positively impact the transfer of learning (Broad & Newstrom, 1992). At the end of the questions for each of the five situational factor, participants were asked a question about involvement.

Who was involved in determining the new: performance specifications or resources, or procedures/workflow, or consequences or feedback system? About 40% of Mega Power responses indicated that the supervisor or his or her peers were involved in the process. About 1/2 of those responses (20% overall) indicated that the supervisor did (or could have) influenced the decisions. Supervisors felt both the greatest involvement and influence in determining resources.

Pharma Health responses were similar to those of Mega Power with answers indicating that the salesperson or his/her peers were involved in the decision process about 50% of the time and about 1/2 of that time (25% overall) did or could have had an influence in the outcome. No one topical area seemed to get a greater positive response than another.

Uptime Inc. respondents felt as though they had much less involvement. They responded only 2% of the time that they or their peers had any input into the changes. The majority response to this question was, "I don't know."

Reality Check

A concern voiced early in the design of the research project by the researcher and his advisory committee was whether management could accurately select rapid developers. For this reason, two questions were included in the survey to elicit responses on this topic from the respondent's perspective.

1. We've been talking about doing new and different things. Besides yourself, what two other _____ are going gangbusters within your (work unit)? This question was asked to learn who the respondents regarded as rapid developers. Depending upon the response to this question, the answers could discover how well the rapid developer work environment model holds up when peers choose the rapid developers. In addition, these responses might demonstrate similarities and differences in how peers view rapid developers compared to managers.

2. What two _____ have done the least to change? This question was asked to further compare similarities and differences between the perceptions of the respondents and managers.

Table 7 shows the agreement between managers' perceptions of who the rapid developers are compared to the respondent's perception. The left-hand column reveals that a total of 69 individuals were selected by managers as being rapid developers. The second column shows that the respondents interviewed in this study selected a total of 85 of their peers as rapid developers. The third column shows the agreement between the first and second column. For example, 5 Pharma Health salespeople were selected by both managers and respondents as being rapid developers.

Table 7

**The Agreement Between Managers and Respondents
in Selecting Rapid Developers**

Manager-Selected Rapid Developers	Respondent-Selected Rapid Developers	Agreement Between Managers & Respondents
<hr/>		
<hr/> Pharma Health <hr/>		
17	28	5
<hr/>		
<hr/> Mega Power <hr/>		
26	31	9
<hr/>		
<hr/> Uptime, Inc. <hr/>		
33	26	11
<hr/>		
<hr/> TOTAL <hr/>		
69	85	26
<hr/>		

Note: Number of duplicate selections made by respondents: 4 for Pharma Health; 6 for Mega Power, and 0 for Uptime, Inc.

Overall, a total of 26 individuals were selected by both the managers and the respondents as rapid developers.

The table also footnotes the number of duplicate selections made by respondents. For example, Pharma Health respondents provided a total of 32 names

identified as rapid developers. Four (4) were duplicates, leaving a total of 28 respondent-selected rapid developers. Only a small percentage of duplicates is also seen in the other two organizations. This small overlap appears unusually low until one remembers that the targeted population for each organization was broken down into many work units and that respondents were asked to identify only rapid developers in their work unit.

By chance, 4 of the 5 manager/respondent matches for Pharma Health were interviewed in this research study. One individual from the Pharma Health randomly-selected comparison group also happened to be a respondent-selected rapid developer and was interviewed. Therefore, a total of 5 Pharma Health individuals selected by the respondents as rapid developers were interviewed. By chance, 3 out of the 9 Mega Power manager/respondent matches were interviewed. One (1) other Mega Power respondent selection was a member of the randomly-selected comparison group and was also interviewed. Lastly, 4 out of the 11 Uptime Inc. matches were interviewed. None of the respondents' choices for rapid developers were among the comparison group. Adding up the numbers for the three organizations reveals a total sum of 13 respondent-selected rapid developers who were interviewed in the research process.

The other question of the "reality check" asked research respondents which of their peers had done the least to change. Pharma Health respondents named seven individuals (2 duplicates), Mega Power respondents provided 22 names (4 duplicates), and Uptime Inc. respondents provided 3 names (0 duplicates),

Combined, the respondents from the 3 organizations selected 32 individuals as having done the least to change. Three (3) of these individuals (all from Mega Power) matched manager-selected rapid developers. By chance, none of these 3 were interviewed.

For the most part, Mega Power respondents were open in providing names for both questions comprising the reality check. Many Pharma Health participants were very reluctant to provide names of those doing the least to change with several respondents questioning the interviewer's motive and voicing concern over confidentiality. Uptime Inc. participants were even more resistant to this question to the point that the interviewer quit asking them to identify those doing the least to change after the first few interviews. This provides secondary evidence demonstrating the lack of candor within these organizations.

Comments

At the end of the interviews, respondents were all given the opportunity to make any final remarks. Some used this opportunity to again voice their concern over the organizational changes, while the comments of others demonstrated resignation to the new order. Several made statements displaying concern that their comments might appear to be more negative than they actually felt about things. Many voiced approval that the organization had sanctioned this research and that they were very interested in learning the outcomes and subsequent actions to be taken. Here are a few comments that provide a sense of these remarks:

I think that it's good to know that there are some people that want this information that feel that it will be useful to them and I hope it gets back to the right people. I think we've got a lot of people here, and I'm not just saying this, I think we have a lot of people that are great employees that want to do well, that are becoming sort of--I don't know if disgusted is the right word, but sort of dismayed with the way things are going, want something to happen, want to make things better, but are kind of held back due to the non-performers.

... it's here to stay and you got to live with it. You know, we can look back at the old days, but the old days are gone.

Well just that if I sound negative, I don't mean to, OK, because I've been with this company a very long time. And it's dear to my heart, so to speak. I used to enjoy every minute that I put in here. I say "used to" because anymore, I don't.

Distribution of the Work Environment Factors

Figure 6 displays the distribution of the perceived presence of work environment factors by respondent. None of the 56 respondents perceived that all 9 factors were present while 12 respondents perceived 4 factors were present. Only one respondent felt that none of the work environment factors were present.

Figure 7 graphically shows the combined average presence of each of the nine work environment factors-by-factor. Candor (Factor 8) was perceived as being present only 12% of the time while Community (Factor 9) was perceived as being present 93% of the time.

Hypotheses Testing

Review of Analysis Methods for Hypotheses Testing

Prior to discovering who the managers selected as rapid developers, the

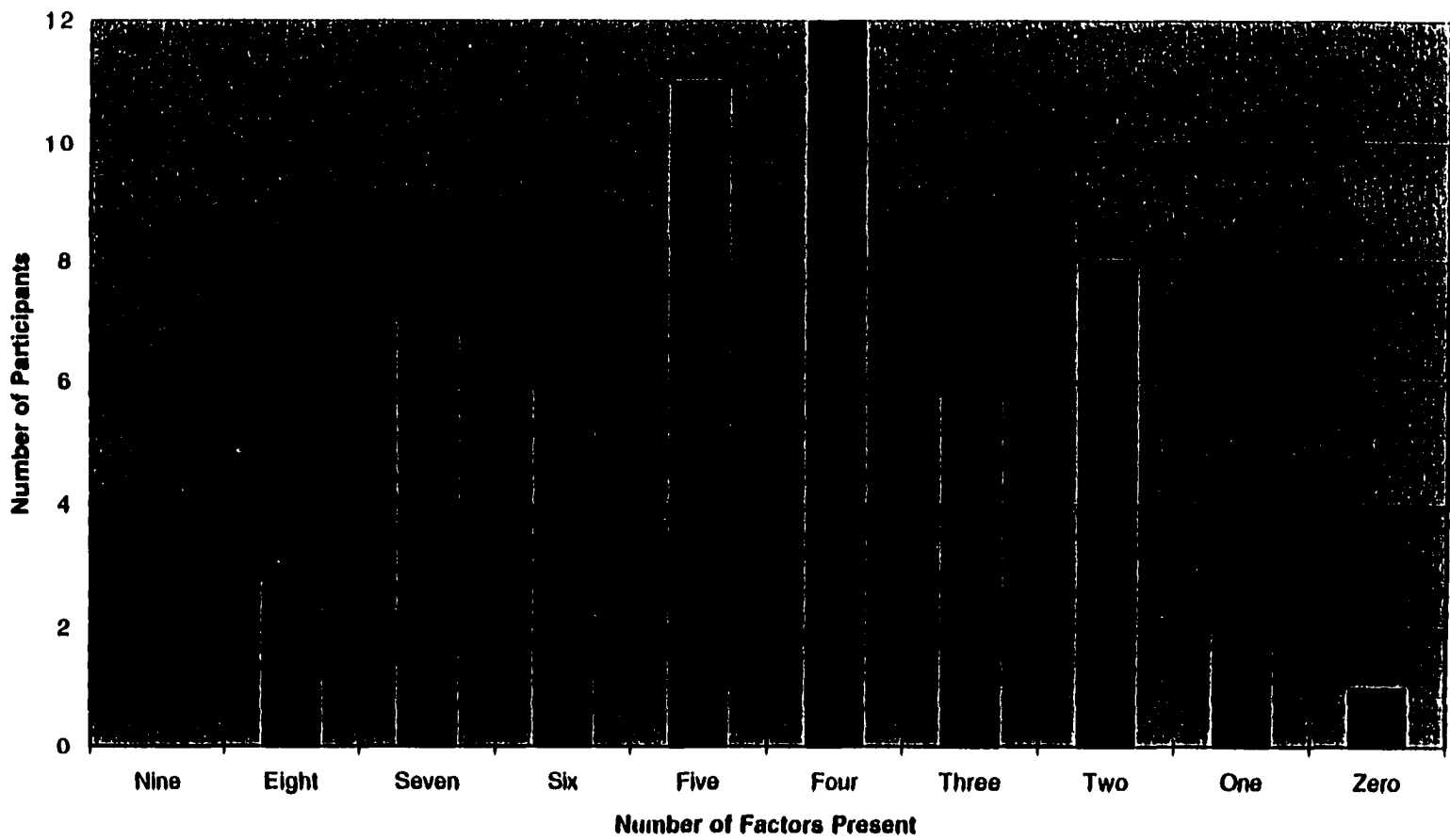


Figure 6. Distribution of the Perceived Presence of Work Environment Factors by Respondent.

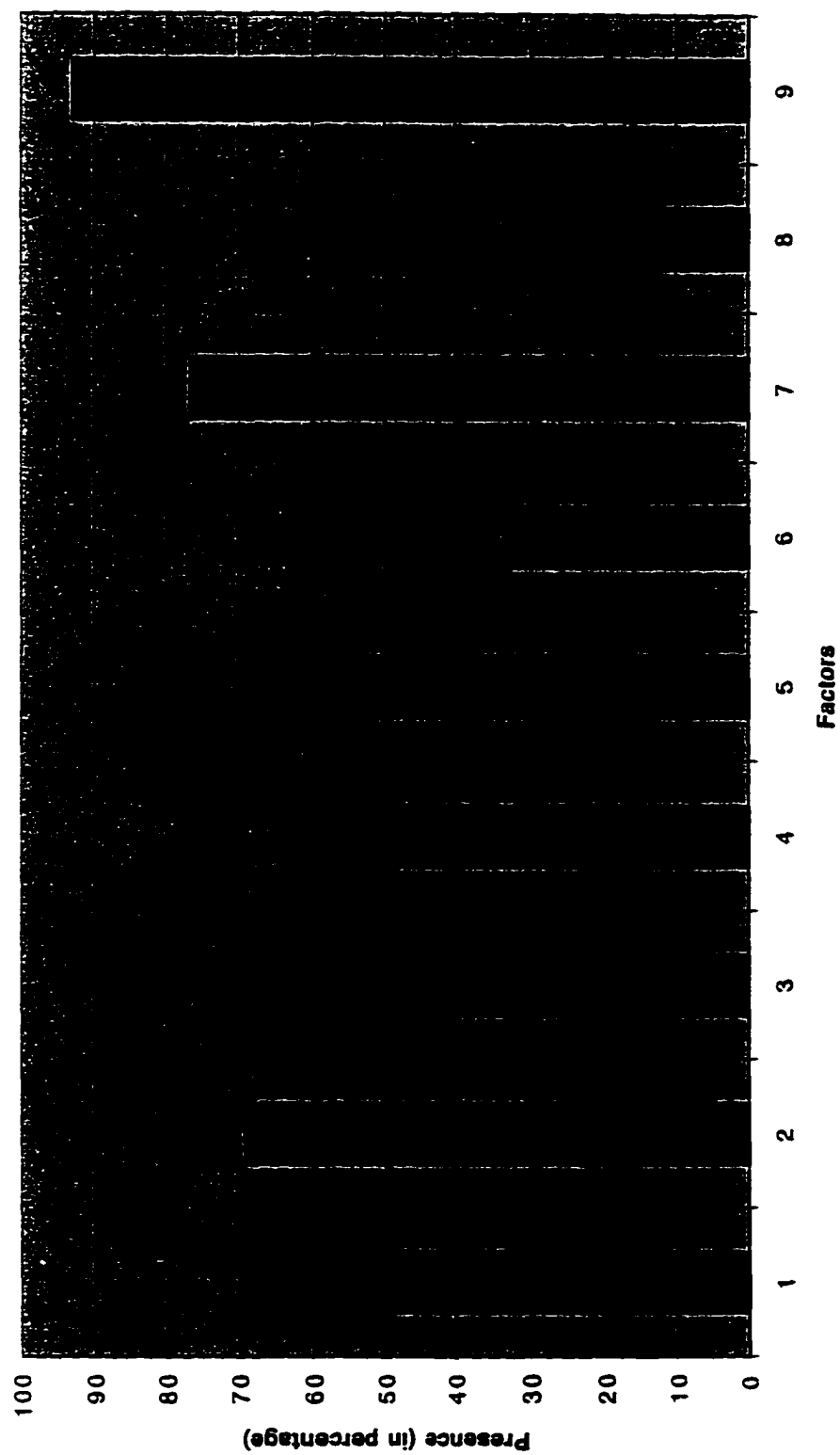


Figure 7. Presence of Work Environment Factors by Factor.

researcher used the preliminary data to make his own rapid developer predictions for all three hypotheses. The researcher sealed a memo containing the predictions in an envelope, delivered the envelope to the committee chair, and sent a copy of this memo to the organization sponsor. Only after the predictions were made did the researcher obtain from the organization collaborator the list of the codes of the manager-selected rapid developers and the individuals of the comparison group.

Logistic regression was selected as the most appropriate inferential statistical test to test the hypotheses. When the researcher determined that there would be value in conducting additional tests, logistic regression was again chosen. Following are the results of the inferential tests for each hypothesis as well as the additional tests that were conducted.

Hypothesis No. 1: Rapid Developers Perceive That More Environmental Factors Are Present Than Not-Rapid Developers

Figure 8 graphically illustrates the model predicted rapid developers compared to the model predicted not-rapid developers. Research respondents who perceived 5 or more work environment factors present were considered rapid developers, with those perceiving 4 or fewer factors present classified as not-rapid developers. This is an overall comparison comprised of all 27 predicted rapid developers and 29 predicted not-rapid developers. For example, the average perception of the presence of factor one (Fitting Performance Specifications) was 74% for rapid developers and 25% for not-rapid developers. The chart demonstrates the sizable gap between predicted rapid developers and predicted not-rapid developers for all nine factors.

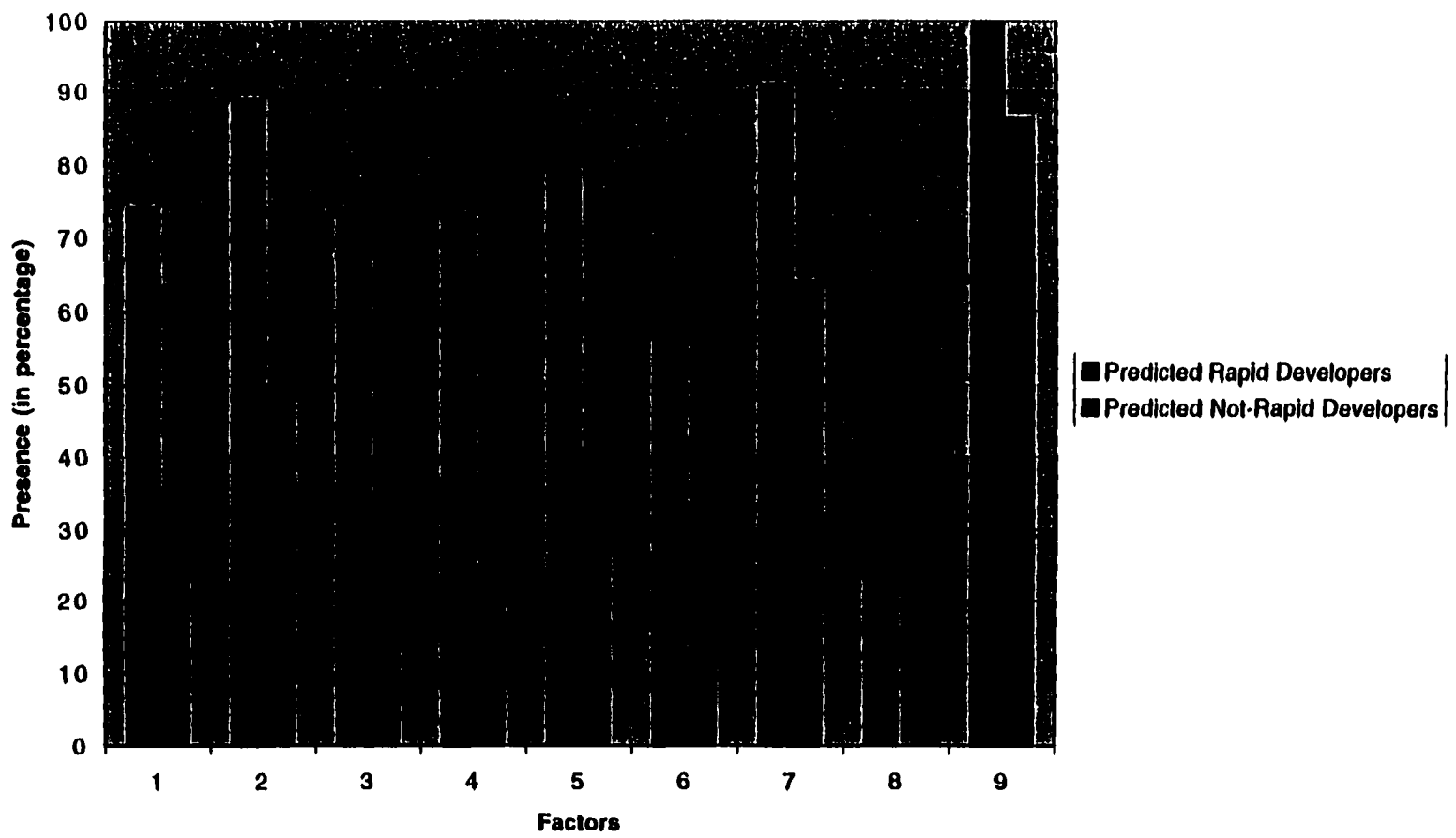


Figure 8. Predicted Rapid Developers vs. Predicted Not-Rapid Developers.

Table 8 shows the numbers and percentages behind Figure 8 plus provides the individual data for each of the three organizations. For example, 8 out of 12 (67%) of Uptime Inc. respondents predicted by the model as being rapid developers perceived that factor one (Fitting Performance Specifications), was present. Two (2) out of 4 (50%) of the Uptime Inc. respondents predicted to be not-rapid developers perceived that factor one was present. Since five (5) Uptime Inc. respondents were predicted to be not-rapid developers, 1 value is missing.

Figure 9 graphically displays how well the model holds up for the total of all respondents when manager-selected rapid developers are compared to a randomly-selected group. Visual examination shows little difference between the two groups. In fact, in five of the nine factors the randomly-selected sample actually demonstrates a higher presence per factor than the manager-selected rapid developers.

Table 9 provides the counts and percentages behind the summary presented in Figure 9 as well as the counts and percentages for each of the three participating organizations. For example, the left-hand column labeled "category" shows that there were 8 individuals in the Uptime Inc. manager-selected rapid developer group and 9 individuals in the comparison group for a total of 17 respondents. The next column to the right shows the counts and the percentages of the comparison groups by factor. For example, 71%, or five of seven individuals in the Uptime Inc. manager-selected rapid developer group, perceived that the Fitting Performance Specification was present. Since this group is made up of eight (8) total respondents one value is missing. Five of nine, or 56% of individuals in the Uptime Inc. comparison group

Table 8

Presence of Factors: Predicted Rapid Developers vs. Predicted Not-Rapid Developers

Category	1 Fitting Perform. Specifica- tions	2 Adequate Resources	3 Effective Procedures/ Workflow	4 Appropriate Consequen- ces	5 Quality Feedback	6 Competence	7 Continuous Learning	8 Candor	9 Community	Total
Pharma Health (20 participants)										
Rapid (9)	7/9 78%	8/9 89%	4/8 50%	6/9 67%	5/8 62%	5/7 71%	8/8 100%	0/8 0%	9/9 100%	52/75 69%
Not Rapid (11)	4/11 36%	3/10 30%	0/9 0%	1/10 10%	0/10 0%	1/9 11%	9/10 90%	0/8 0%	11/11 100%	29/88 31%
Mega Power (19 participants)										
Rapid (6)	5/6 83%	5/6 83%	4/6 67%	3/5 60%	4/4 100%	3/6 50%	4/5 80%	3/6 50%	6/6 100%	37/50 75%
Not Rapid (13)	1/13 8%	6/13 46%	2/13 15%	3/13 23%	7/12 58%	2/12 17%	7/11 64%	0/13 0%	1/13 85%	59/113 35%
Uptime, Inc. (17 participants)										
Rapid (12)	8/12 67%	11/12 92%	9/9 100%	10/12 83%	10/12 83%	4/8 50%	8/9 89%	3/11 27%	12/12 100%	75/97 77%
Not Rapid (5)	2/4 50%	5/5 100%	2/5 40%	3/5 60%	1/5 20%	0/3 0%	0/4 0%	0/5 0%	3/5 60%	16/41 37%
TOTAL FOR ALL THREE ORGANIZATIONS (56 participants)										
Rapid (27)	20/27 74%	24/27 89%	17/23 74%	19/26 73%	19/24 79%	12/21 57%	20/22 91%	6/25 24%	27/27 100%	164/222 74%
Not Rapid (29)	7/28 25%	14/28 50%	4/27 15%	7/28 25%	8/27 30%	3/24 12%	6/25 64%	0/26 0%	25/29 86%	74/241 34%

Model rapid developers have 5 or more factors present and Model not rapid developers have 4 or less factors present.

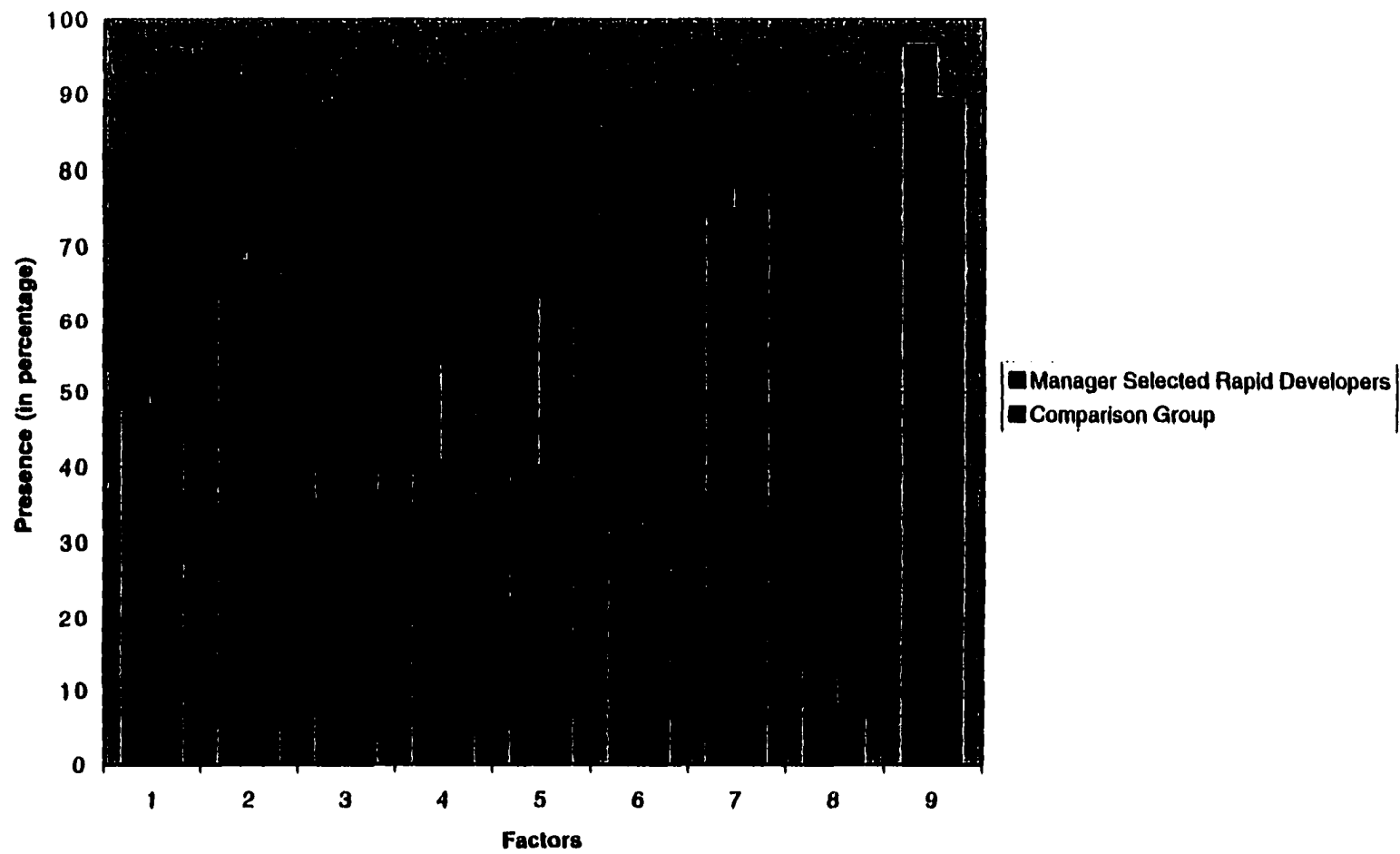


Figure 9. Manager-Selected Rapid Developers vs. Comparison Group.

Table 9
Manager-Selected Rapid Developers vs. Comparison Group

Category	FACTOR									Total
	1 Fitting Perform. Specifications	2 Adequate Resources	3 Effective Procedures/ Workflow	4 Appropriate Consequences	5 Quality Feedback	6 Competence	7 Continuous Learning	8 Candor	9 Community	
Rapid -10 Comparison - 10	Pharma Health (20 participants)									
	6/10 60% 5/10 50%	5/10 50% 6/9 67%	2/9 22% 2/8 25%	3/10 30% 4/9 44%	1/9 11% 4/9 44%	2/7 29% 4/9 44%	8/8 100% 9/10 90%	0/8 0% 0/8 0%	10/10 100% 10/10 100%	27/81 45% 34/82 52%
Rapid - 10 Comparison -9	Mega Power (19 participants)									
	2/10 20% 4/9 44%	7/10 70% 4/9 44%	3/10 30% 3/9 33%	1/9 11% 5/9 56%	4/8 50% 7/8 88%	2/9 22% 3/9 33%	6/10 60% 5/6 83%	2/10 20% 1/9 11%	9/10 90% 8/9 89%	36/86 42% 40/77 52%
Rapid - 8 Comparison - 9	Uptime, Inc. (17 participants)									
	5/7 71% 5/9 56%	7/8 88% 9/9 100%	6/7 86% 5/7 71%	7/8 88% 6/9 67%	5/8 88% 6/9 67%	3/4 75% 1/7 14%	4/6 67% 4/7 57%	2/8 25% 1/8 12%	8/8 100% 7/9 78%	47/64 73% 44/74 59%
Rapid - 28 Comparison - 28	TOTAL FOR ALL THREE ORGANIZATIONS (56 participants)									
	13/27 48% 14/28 50%	19/28 68% 19/27 70%	11/26 42% 10/24 42%	11/27 41% 15/27 56%	10/25 40% 17/26 65%	7/20 35% 8/25 32%	8/24 75% 18/23 78%	4/26 15% 2/25 8%	27/28 96% 25/28 89%	120/231 52% 128/233 55%

perceived that the Fitting Performance Specifications Factor was present. Combining the responses of all three organization shows that 48% of the manager-selected rapid developers felt that the Fitting Performance Specification was present versus 50% for the comparison group. This approach is used for all nine factors. The column at the far right demonstrates the differences between the two groups by adding up the data for all factors. For example, the Pharma Health total is the sum of all the factors for each comparison group. Forty-five percent (45%), or 37 responses of 81, demonstrated the perceived presence for all nine factors for the manager-selected rapid developer group.

The logistic analysis test analyzes whether the proportion of factors present is greater for one group than another. Therefore, the null hypothesis for hypothesis no. 1 is: there is no difference in the proportion of factors present between manager selected and the comparison group. Statistics confirm what is visually apparent, there are no differences between the manager-selected and the randomly-selected comparison groups. The logistic regression analysis reveals a probability of 0.52. A probability of less than .05 is necessary to reject the null hypothesis. Hence, the null hypothesis is not rejected and the model is not supported when managers select the rapid developers.

Hypothesis No. 2: Rapid Developers Perceive That Performance Specifications Are Fitting

This hypothesis was based upon the assumption that the Fitting Performance Specifications Factor was the most important factor and, therefore, the presence of

this factor is an indicator of overall rapid development. Without support for Hypothesis #1, it would not be expected to have support for Hypothesis No. 2. Statistics confirm that there is no predictive capability for this factor with the test for logistic regression probability 1.0. Differences between the two groups are indistinguishable and hypothesis no. 2 is not supported.

Hypothesis No. 3: The Perception of the New Performance Specifications of Rapid Developers Align With Management's Performance Specifications

This hypothesis was unable to be explored because the numbers were not large enough to warrant testing. Only 7% (4 out of 56) participants gave responses that aligned with management's performance expectations. Therefore, hypothesis #3 is not supported.

In conclusion, when managers select the rapid developers, the rapid developer work environment model is not supported. Statistical tests confirmed this with no support provided for any of the three hypotheses.

Additional Tests

An early concern in the creation of the research design was the fear that managers would not know who the rapid developers were. For this reason, additional information about respondents' identification of rapid developers was gathered during the data collection.

Figure 10 graphically shows the respondent-selected rapid developers versus a comparison group. The respondent-selected group is composed of the 13 individuals

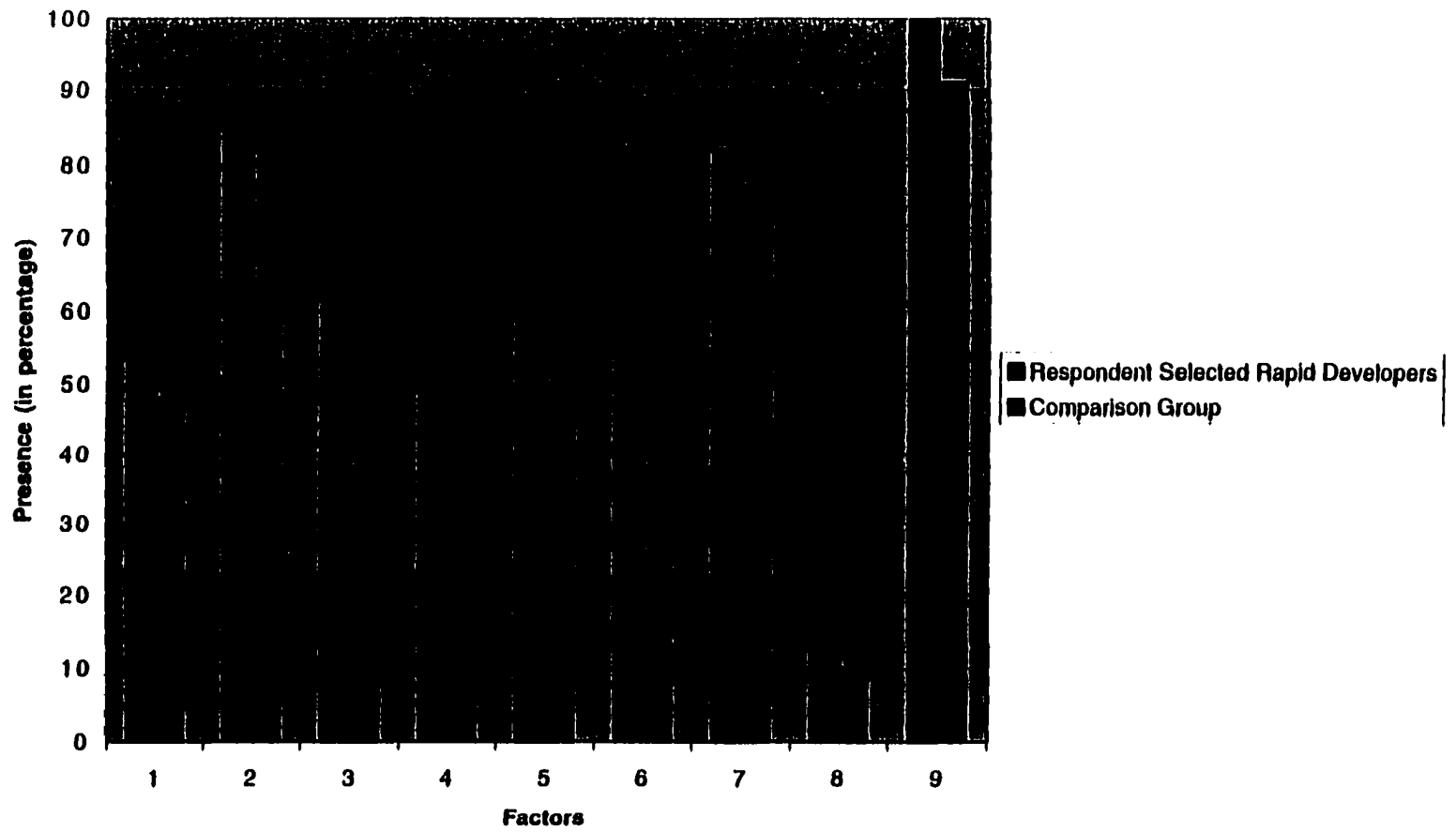


Figure 10. Respondent-Selected Rapid Developers vs. Comparison Group.

selected by respondents as rapid developers who were actually interviewed. The comparison group consists of the remaining 43 individuals interviewed who were not selected as rapid developers by research respondents. Respondent-selected rapid developers show more presence than the comparison group on all nine of the work environment factors.

Similar to earlier tables, Table 10 provides the data behind Figure 10 including counts and percentages by participating organization. The logistic regression test was used to look for differences between these two groups. In this case, the null hypothesis is that there is no difference in the proportion of factors present between the respondent selected and the comparison group. When making this comparison, the logistic regression analysis displays a probability of 0.03 with a positive parameter estimate. Thus, there is a difference between these two groups and the rapid developer model is supported when respondents select the rapid developers. Peers know who the rapid developers are.

A consideration of this study is that differences among the companies might contribute to the significant difference found between respondent-selected rapid developers and the comparison group. This was especially important to explore due to the differences observed of Uptime Inc. compared to the other two organizations. Uptime Inc. generally perceived the presence of factors considerably higher than Pharma Health and Mega Power. Since Uptime Inc. respondents felt fewer changes in expectations compared to respondents from the other two organizations, the assumptions and reasoning behind their perceptions may have been different. It was

Table 10

Respondent-Selected Rapid Developers vs. Comparison Group

Category	1 Fitting Performance Specifications	2 Adequate Resources	3 Effective Procedures/ Workflow	4 Appropriate Consequences	FACTOR 5 Quality Feedback	6 Competence	7 Continuous Learning	8 Candor	9 Community	Total
Pharma Health (20 participants)										
Rapid - 5 Comparison - 15	5/5 100% 6/15 40%	4/5 80% 7/14 50%	2/5 40% 3/12 25%	2/5 40% 4/14 29%	1/4 25% 4/14 29%	3/4 75% 3/12 25%	5/5 100% 12/13 92%	0/5 0% 0/11 0%	5/5 100% 15/15 100%	27/43 62% 44/12- 43%
Mega Power (19 participants)										
Rapid - 4 Comparison - 15	0/4 0% 6/15 40%	3/4 75% 8/15 53%	2/4 50% 4/15 27%	1/3 33% 5/15 33%	2/3 67% 9/13 69%	1/4 25% 4/14 29%	2/4 50% 9/12 75%	1/4 25% 2/15 13%	4/4 100% 13/15 87%	16/34 47% 60/129 47%
Uptime, Inc. (17 participants)										
Rapid (4) Comparison (13)	2/4 50% 8/12 67%	4/4 100% 12/13 92%	4/4 100% 7/10 70%	3/4 75% 10/13 77%	4/4 100% 7/13 77%	2/3 67% 2/8 25%	2/2 100% 6/11 54%	1/4 25% 2/12 17%	4/4 100% 11/13 85%	26/33 80% 65/105 60%
TOTAL FOR ALL THREE ORGANIZATIONS (56 participants)										
Rapid (13) Comparison (43)	7/13 54% 20/42 48%	11/13 85% 27/42 64%	8/13 62% 14/37 38%	6/12 50% 19/42 45%	7/11 64% 20/40 50%	6/11 54% 9/34 26%	9/11 82% 7/36 75%	2/13 15% 4/38 10%	13/13 100% 39/43 91%	69/110 63% 159/354 50%

important to determine if Uptime Inc. was responsible for the statistical differences. Figure 11 compares the differences in the perceived presence of work environment factors by organization.

Table 11 considers these possibilities through the analysis of parameter estimates determined by the logistic regression test. The 0.70 significance level of Mega Power confirms that there is no difference between Mega Power and Pharma Health. Yet Uptime Inc. is shown to be different from Pharma Health and Mega Power as indicated by the 0.004 significance level. However, the 0.014 probability for the respondent-selected group is significant as well. So even taking into consideration the differences of Uptime Inc., there is a statistical difference between respondent-selected rapid developers and a comparison group. This further strengthens the case that the rapid developer model is supported when peers select the rapid developers.

Earlier, it was shown that Hypothesis No. 2: Rapid developers perceive that performance specifications are fitting, was not supported when managers selected the rapid developers. The same test of logistic regression was used to determine if the presence of the Fitting Performance Specifications Factor could predict rapid developers when respondent-selected rapid developers were used. Although the parameter estimate for respondent-selected rapid developers was positive, the probability was 0.75 and the assumption was not supported. The presence of the fitting performance specifications factor is not a good predictor of respondent-selected rapid developers.

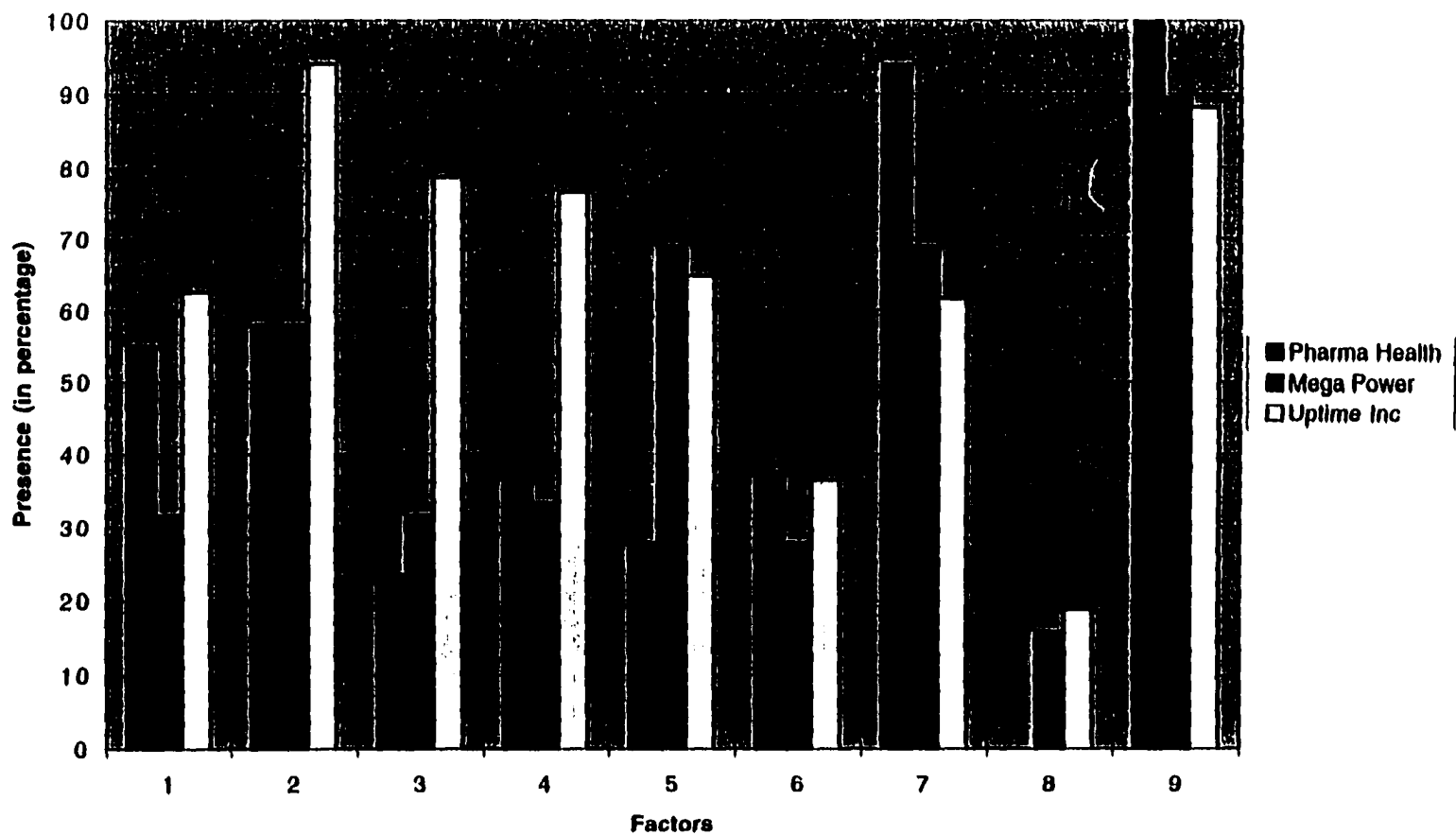


Figure 11. Three Organization Comparison: Perceived Presence of Work Environment Factors.

Table 11

Analysis of Parameter Estimates

Variable	Degrees of Freedom	Parameter Estimate	Standard Error	Wald Chi- Square	Probabil- ity> Chi- Square	Standard -ized Estimate
Mega Power	1	-0.08	0.22	0.14	0.704	-0.02
Uptime, Inc.	1	0.69	0.24	8.22	0.004	0.17
Manager Selected	1	-0.23	0.20	1.39	0.239	-0.06
Respondent Selected	1	0.58	.024	6.03	0.014	0.14

This chapter presented the research findings for each of the nine factors. The distribution of the presence of factors was provided both by respondent and by factor. The results of the testing of hypotheses were provided demonstrating that none of the three hypotheses are supported when managers select the rapid developers. However, additional testing shows support for the rapid developer model when peers select the rapid developers.

CHAPTER V

DISCUSSION

This chapter attempts to integrate the findings from this research with current theory, research, and practice. This chapter starts with an overview of significant findings that highlight the most important results. Next, the findings are considered in light of existing research, theory, and practice. Implications for current theory and professional practice are reviewed and finally, recommendations for further research are provided.

Overview of Significant Findings

Regarding the results of inferential tests:

- 1. The rapid developer model is not supported when managers select the rapid developers.**
- 2. The rapid-developer model is supported when peers select the rapid developers.**
- 3. The presence of the Fitting Performance Specifications factor is not a predictor of rapid development. This held true when managers selected the rapid developers as well as when peers selected the rapid developers.**
- 4. The importance of the alignment between participant's understanding of new expectations and management's expectations could not be explored because their**

was too little alignment to warrant testing.

In general:

- 1. One-half (1/2) of the research participants felt that performance specifications were not clear and realistic.**
- 2. One-half (1/2) of the research participants felt that appropriate consequences were not in place.**
- 3. One-half (1/2) of the research participants felt that they did not receive quality feedback.**
- 4. One-half (1/2) of the responses concerning involvement indicated that participants felt that they (or their peers) were involved in the decision making process concerning changes to the situational factors.**
- 5. One-fourth (1/4) of the responses concerning involvement indicated that participants felt that they (or their peers) did (or could have) influenced the decision making process regarding changes to the situational factors.**
- 6. One half (1/2) of the research participants did not understand the strategic reasons for the major changes occurring in their organizations.**
- 7. Two (2) out of 3 research participants felt that politics was more important than performance in getting ahead.**
- 8. Over 90% of the research participants did not understand management's new expectations of them.**
- 9. Only 5% of all respondents understood management's expectations of them and felt that those expectations were clear and realistic.**

10. Nearly 90% of respondents felt that their peers would avoid, misrepresent, or lie to senior management on important but controversial issues upon which they disagree.

Consideration in Light of Existing Research, Theory, and Practice

A Supportive Work Environment Is Vital to Learning and Development

All the disciplines discussed in the chapter two literature review stated the importance of the work environment to learning. The support of the model sanctions and confirms the thinking of theorists (Argyris, Gilbert, Juran, Schein, and others), the research-to-date on the work environment and learning (Martineau 1995; Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanagh, 1995) and the experience of practitioners (Rummler & Brache, 1990) of the last few decades. If we assume that managers did not know who the rapid developers were and the peer group did, the data show that rapid developers perceive a greater presence of the factors defined by the rapid developer model. However, the possibility exists that those selected were top performers and not necessarily rapid developers.

Espoused Theories-of-Action Are Different From Theories-in-Use

Argyris and Schön (1974) demonstrated that people from a variety of different walks of life all espoused a similar set of principles by which to live. However, when put to the test, all these various groups acted in ways quite different from what they espoused. Often, people acted in ways totally counter to what they said they did.

The questioning associated with the presence of the Candor factor directly supports these earlier findings. When asked, people initially responded on how people *should* act in a situation. When pressed further about how people actually *would* act, the response was directly the opposite. People talked about the need for candor, but admitted it would not happen in interactions with senior management when important and controversial issues were the topic.

Management May Be Out of Touch

In Search of Excellence (Peters & Waterman, 1982) made the case that most managers do not know what is going on and must make planful attempts to uncover reality by using tactics such as “management by walking around.” Drucker (1973) has warned for decades of management isolation and the woeful results it brings about.

When it comes to learning and development, this study supports their fears--management did not have the information they needed to make good judgments. In this study, management was out of touch.

Attempts to Improve Learning and Development Should Address the Work Environment Before Addressing the Individual Learners

In light of the limited presence of overall work environment factors, the principle of fixing the learning environment before addressing the specific needs of the learner (Gilbert, 1978; Rummier & Brache, 1990) gains credence. In two of the three organizations, great emphasis had been placed upon providing training and other

learning interventions targeted at individuals. After one and two years respectively, results had not met senior management expectations. There was still strong resistance to change. Nothing had been targeted at changing the work environment. Fixing the environment first before offering training, etc., could possibly have yielded a much higher return on investment. The data suggest that management efforts aimed at clearly understanding, defining, and communicating each of the model factors in light of the organizational changes could speed learning.

Implications for Current Theory and Professional Practice

An Explanation for Poor Learning and Slow Change

In many ways this study confirms what insightful practitioners have sensed all along—that often the work environment is perceived as vague, non-supportive, and sometimes even hostile to learning and change. By drawing these facts out in the open, they can be contemplated and addressed in a rational and straight-forward approach.

Although the senior management (organization sponsors) of these three organizations felt strongly about the business need for rapid learning and development, none had taken steps specifically aimed at addressing the learning environment. If the lack of presence of work environment factors is an indicator of opportunity, there is major potential for significant return on investment aimed at closing these gaps. These findings help provide rationale for: (a) why major organizational change is so difficult, takes so long, and often fails; (b) why individuals undergo such stress, frustration, and

great difficulty in adapting to major change; and (c) why the return on training and other learning interventions is typically so marginal.

Possible Applications of the Findings

The model may have use at several points whenever organization change is occurring and subsequently learning and development is important. The model may be used at the onset of a change intervention to evaluate organization readiness. The findings can be used to increase management's awareness of the work environment relevant to learning, its importance in the change process, and assess areas of strength and concern. It can also postpone the seemingly ever-present urge to hurl training immediately at everyone concerned.

A task force of individuals targeted for the change can be armed with the model and charged with determining the status of the current work environment and suggesting changes to make it supportive of the new expectations. This might not only improve the quality of the work environment, but also speed buy-in to the change. For organizations wishing to create empowerment, this puts an espoused value immediately into action.

If the model is supported by further research it could also be used to measure progress by reassessing the work environment during the change. This will give information toward successes and challenges as well as help focus remedial activities and improve on-going efforts.

Recommendations for Further Research

Expand the Research Base

As discussed, many factors are involved in a complex system that requires well-thought out and implemented change efforts. Organization senior management may be reluctant to embark on such an effort based upon data from just three organizations. Therefore, expanding the research to include more organizations makes much sense. If this larger base proves supportive, it will be much easier to convince senior management to dedicate both the time and the money to enhance their change efforts.

Triangulate Methods

Other proofs of reality (beyond perceptions) would add to the strength of the findings, especially since the concept of rapid developers is not common to current thinking. Using techniques similar to observation of exemplar performers (Gilbert, 1978), observations of both rapid and not-rapid developers would help to compare and contrast behaviors of thinking, doing, and reflecting.

In addition, it would be helpful if future studies included some performance measurement to link learning and development to outcomes. Again, this would further strengthen the case and help spur organizations to action.

Study the Work Environment and Learner Characteristics Simultaneously

It has been discussed that three elements work together to determine the quality of the learning transfer: the learning intervention, the characteristics of the learner, and the work environment (Baldwin & Ford, 1988). Studies able to address both the work environment and the characteristics of the learner could shed light on how these important variables work together.

Appendix A
Organization Profiles

Pharma Health is large international pharmaceutical manufacturer. Sales representatives from one US division made up the research population. Approximately one year prior to the study, the sales organization began undergoing dramatic change. Prior to the change, the 120 sales representatives were divided among 13 districts, each led by a district manager who in turn reported to a regional manager. Regional managers reported to a national sales manager who reported to the VP of the division. Most sales representatives had responsibility for all products within a defined geography. Expectations and rewards were all geared toward the individual. Management described the past organization as very traditional and very paternalistic.

In order to achieve aggressive growth goals over the next few years, management felt that major changes were necessary to improve sales effectiveness. Early into the change process, the districts and the district manager positions were abolished. Seventeen self-directed teams were formed based upon customer segments as a part of six strategic business units (SBU's). The teams were specialized--dealing now with only one type of customer. This resulted in many of the sales representatives now having to travel large distances.

The teams were charged with assuming all the past roles and responsibilities of the district manager. In addition, Pharma Health's approach to distribution was dramatically altered. To support these changes,

management conducted numerous meetings outlining the changes and the rationale behind them. Sales people were introduced to information about change and a number of team-related training sessions were conducted by internal personnel. In addition, training positions were created for each SBU supported by a corporate director of training.

The management team confirmed that there were eight new major expectations of the sales people:

- Delighting customers (as opposed to maximizing revenue)
- Assuming personal accountability (instead of looking for someone to blame)
- Innovating (getting "outside of the box")
- Taking charge (instead of waiting to do what told)
- Supporting the team (instead of focusing on their own "personal patch")
- Building demand (instead of harvesting orders)
- Developing new capabilities (not an option any more)
- Running a business (not operating as sales territory)

Profile of Organization B: Mega Power

Mega Power is a regional energy utility. In preparation for deregulation, the utility attempted to radically change most aspects of the organization in order to be more productive and competitive. The research was conducted with a sample of their 150 first-line supervisors from their 16

area service centers. The First Line Supervisor position was created when the change process began, two years prior to this study.

Prior to the change, management described the organization as classic command-and-control. Foremen had specialized jobs either supervising office personnel, above-ground crews, or underground crews. The general foreman's word was final with few questions asked.

Some of the major aspects of the change included: eliminating one layer of management, expanding supervisory control to include two very diverse sets of workers (office and crews), switching organizational emphasis from departmental productivity to process effectiveness, and introducing major new technology at the same time the change was begun.

To support the change effort, an internal consulting position was created and an outside organizational development firm was contracted. Numerous training and group process events were orchestrated for all parties affected by the change.

Management confirmed that there were three major changes in Mega Power's expectations of their first-line supervisors:

- Supporting the leadership team (all for one and one for all)
 - * assuming personal accountability
 - * innovating
 - * taking charge
- Creating their own team (from foremen to leaders)
 - * walking the talk

- * nurturing and coaching
- * encouraging empowerment
- Developing new capabilities (adopting life-long learning)
 - * leading and teaming
 - * using technology
 - * understanding broader operations

Profile of Organization C: Uptime Inc.

Uptime Inc. is the service and support division of a manufacturer of energy-related equipment. The research was conducted with a sample from the target population of 275 field service engineers. These field service engineers report to eleven regional managers.

Management saw a business need both to improve customer satisfaction and improve service productivity. Three months prior to the research, changes were made that impacted the field service organization: a level of management was eliminated, the number of regional managers increased from five to eleven, and a new field position was established with the intent of freeing up the regional manager's time to allow for more coaching of the field service engineers.

A task team with field membership was created to advise management on what changes to make and how to make them. Around the country, a series of meetings were held to explain the changes and their rationale.

Training needs were determined and plans to provide training in the future were created.

Management confirmed that there were four major changes in the expectations of the field service engineer:

- Work more independently with less supervision
- Assume more responsibility (such as scheduling)
- Own all aspects of working with key customers
- Improve capabilities in
 - *project management
 - *customer relations
 - *technology usage
 - *problem solving

Appendix B
Organization Letter

Subject: Dissertation Research Proposal

Dear ____:

As you well know, how quickly your people learn and develop directly impacts organizational performance and your overall competitive position. As part of my doctoral dissertation, I have developed a model of organizational learning. Based upon the research of experts and my own experience, the model outlines the process by which individuals within an organization learn and develop. The model also defines the specific factors that contribute to learning and development. I am looking for three organizations in which to test this model, and would like to explore using your organization as a potential research site.

Research Questions

The research will address these two hypotheses regarding the effects of the environment on personal development and organizational learning:

- 1) The learning environment contributes to the difference between rapid and not-rapid developers.
- 2) The development model will indicate which factors in the environment contribute to rapid development.

The Ideal Organization

The ideal organization in which to conduct my research:

- Is undergoing a significant developmental effort critical to the organization
- Has 50 or more individuals within the group undergoing development

Benefits

Your participation in the research will:

- Contribute to the overall body of knowledge of learning and performance
- Help me accomplish an important personal goal
- Provide you with a comprehensive analysis of your organization's learning and personal development performance for a key initiative (worth several thousand dollars) from a seasoned performance improvement practitioner
- Supplement your personal efforts to improve learning and speed the development of key employees

Project Steps

140

Here are the anticipated steps to conducting the research in your organization.

1) Finalize agreement

You and I will discuss and confirm mutual expectations.

2) Select participants

You will select 10 rapid developers based upon a performance criteria I will help you develop. 10 not-rapid developers will be selected at random from the remaining individuals in our research population. You will indicate which participants are rapid developers and not-rapid developers, seal this list in an envelope, and give the envelope to a 3rd party. Throughout the research, no one will know who falls into which category.

3) Develop checklist

I will spend time in your organization (estimate two days) and then develop a checklist of what the ideal rapid-developer environment should look like in your organization. I anticipate talking to some people, reviewing information, and observing people in action.

4) Schedule interviews

You will contact the participants, explain the research, gain their commitment, and schedule a time for them to be interviewed.

5) Interview participants

A trained interviewer will personally interview all 20 participants over the phone. All interviews will be audio taped. I anticipate the interviews lasting about 45 minutes each.

6) Transcribe interviews

The interviews will be transcribed.

7) Analyze data

I will analyze the transcripts and classify individuals as either rapid developers or not-rapid developers based upon the checklist I developed earlier for your organization.

8) Present findings

After the data from the research at all three organizations are analyzed, I will share my findings with you in a presentation.

9) Publish results

The results will be published at the conclusion of the research project. If you prefer, the name of your organization will not be included.

Timeline

141

I'd like to start on this research ASAP.

Next Steps

Thank you for considering participation in this research. I can be reached at 616-629-4405 or e-mail alexcons@aol.com.

Appendix C

Rapid Developer Work Environment Checklist

Rapid Developer Work Environment Checklist

YES or NO or Don't Know

A. Situational Factors

1. Fitting Performance Specifications

- Do clear performance specifications exist for the new expectations of the performer?
- Are new performance specifications realistic?
- Do new performance specifications align with other expectations?
- Do the new performance specifications support the business process/strategy?

2. Adequate Resources

- Do performers have the information they need when they need it regarding new expectations?
- Do performers have the necessary staffing?
- Do performers have enough time to do the new tasks?
- Do performers have the appropriate tools?

3. Effective Procedures/Workflow

- Are the job procedures and workflow logical for the new tasks?
- Are there ample opportunities to perform new tasks?
- Can the tasks be done without interference from other tasks?

4. Appropriate Consequences

- Are consequences aligned to support the new desired performance?
- Are consequences meaningful to the performer?
- Are consequences timely?
- Do the consequences align with other performance expectations?

5. Quality Feedback

- Is feedback relevant?
- Is feedback accurate?
- Is feedback timely?
- Is feedback specific?
- Is feedback easy to understand?

YES or NO or Don't Know

B. Cultural Factors

6. Competence

- Are results valued more than hard work?
- Is performance more important than political connections in getting recognized and rewarded?
- Do individuals take personal responsibility for their actions?
- Is there tolerance of unusual style or behavior of the people that do good work?

7. Continuous Learning

- Is continuous improvement valued?
- Is innovation valued?
- Are methodologies in place to support both continuous improvement and innovation?
- Are systems in place to capture and transfer knowledge?
- Is quality failure OK?

8. Candor

- Are people frank even when ideas directly confront those of superiors?
- Do people challenge the unsupported talk and actions of others?
- Do people routinely stop and think about what they are doing and why?
- Are the thoughts and actions of exemplary performers analyzed and used for improvement efforts?

9. Community

- Do people routinely support people who ask for help?
- Do people think of their roles in terms of the larger organization?
- Are social interactions encouraged?

Appendix D
Management Question Guide

Management Question Guide

146

Position the Research

Demonstrate Value

Management Questions (all interviews recorded)

- You've identified ____ as an important change. Is it critical to achieving the success of your organization? Why?
- Please walk me through the history. When identified? How? What happened next? After that?
- What do you expect the ____ to do differently? Examples.
- What initiatives have been put in place to address those issues? Why?
- What's going well? Why?
- What isn't? Why? How addressing?
- How will you know if the change initiative has been successful? Measures?
- In relation to the initiative, what has been your involvement?
- In retrospect, what would you have done differently?

Thank you

Confirm next steps

Appendix E
Rapid Developer Guide: Test

Determining Rapid Developers

148

10-15-96 Test at ____

Purpose

How quickly people learn and develop is critical to bringing about ____'s change from an ____ to _____. For our purposes we want to identify the rapid developers, the people who have "got it" as it relates to doing things differently. **We are not necessarily trying to determine the current star performers.** We are trying to identify the people who have come the farthest the fastest.

Confirm that there are no other measures in place to do so. For example, have performance standards been changed to address? Have awards been established? Anything in the feedback system that might show frequencies of new desired behaviors?

Procedures

Individually

- Here is a sheet of paper with all the employees listed on it identified by a number
- On another sheet of paper write down the **number** of the 12 individual that you feel are the fastest developers
- Jot down specific reasons why you chose those individuals by the number
- Next, rank the individuals from the fastest rapid developer (#1) to the slowest rapid developer

As a Group

- Post on the wall the rankings
- Reach consensus on the individuals, the ranking, and the criteria

Follow-Up

- Client seal ranked list along with employee listing in envelope

Feedback

Ask for feedback as to the effectiveness of this exercise

Appendix F

Rapid Developer Guide: Meeting

10-14-96 Rapid Developer Selection Session: Leader's Guide

150

Background

"Thank you for taking time to participate in this session. I believe you will find it worthwhile. First let me give you some background information. As you know, ___ is cooperating with me by acting as a research site for my doctoral dissertation. The focus of my study is looking at how environmental factors impact the speed of individual's learning and development. The research ties in very nicely with ___ changes over the past year and hopefully will yield some information valuable to the division. Your input is a very important part of the study. I am most interested in looking at the sales reps.

Today's Purpose

In order to determine the true impact of environmental factors, it is important to determine who the rapid developers are. You are the best judges of that. In just a few minutes I will be asking each of you to determine who the rapid developers are in your business units.

Explanation/Rationale

To begin with, let me define rapid developer. A rapid developer is someone who has come the furthest the fastest relevant to new expectations. A rapid developer is someone who has learned new information and exhibited new behaviors relevant to the changes quicker than the rest of the organization. Ideally, these changes in behavior lead to results that align with the new expectations. PLEASE KEEP IN MIND THAT TODAY'S RAPID DEVELOPERS ARE NOT NECESSARILY TODAY'S TOP PERFORMERS.

Also, please remember that an important consideration is that no one is embarrassed by the research. No one other than you will know who has been designated as rapid developers. The research is designed so that I will never know the names of those designated as rapid developers or those designated as not-rapid developers.

Process

Let me explain the process. Today, this group will determine 10 rapid developers that meet a criteria. 10 other sales reps will be chosen at random to represent a not-rapid developer sample. I have trained another individual, ___, to conduct the interviews. ___ will ask a series of questions designed to determine the impact of environmental factors on learning and development. ___ will not know who falls into which category. All interviews will be transcribed and the transcriptionist will eliminate the name of the interviewee. Then I will use the transcripts to analyze the information.

In our discussion today, please refer to the sales person by territory number, not name. I don't want to know who you are talking about.

After the group has made the selection, ___ (organization collaborator) will select a sample of 10 others randomly. She will then add (and mix) the names from both groups together and create a list of 20 names and phone numbers. Sales reps won't be identified as to which group they are in. ___ will pass this list on to the ___ (the interviewer). We are only interested in territory reps that have been hired prior to 12-15-96.

The time frame I would like you to consider is from December 15, 1996 till now.

Example

Suppose that a field service organization that services computers has changed expectations of its field technicians. Now, instead of just expecting them to fix computers effectively and efficiently, they are also expected to now “fix the customer” – make sure that they are satisfied. The service technicians are told about the new expectations, given training, and they are now bonused to reflect how well they satisfy customers. In this scenario, indicators of rapid development might include: more and better feedback from customers, actual observation of field technicians exhibiting “customer satisfaction behavior”, more inquiries by technicians about problems and how to handle more effectively, submission of ideas on how to satisfy customers better, reports that now indicate much more emphasis on the customer than on the equipment. Indicators of not-rapid development might include lip-service and head-nodding in meetings and in conversations, but no change in behavior or results.

Changes in Expectation

From the interviews I have conducted, it sounds to me as if the major changes in ____ sales representative expectations are:

- delighting customers (as opposed to maximizing revenue)
- assuming personal accountability (instead of looking for someone to blame)
- innovating (getting outside of the box)
- taking charge (instead of waiting to do what told)
- supporting the team (instead of focusing on personal patch)
- building demand (instead of harvesting orders)
- developing new capabilities (not an option any more)
- running a business (not operating as sales territory)

Are these in line with your thinking? Let's change/enhance.

Exercise

Remember that our purpose is to identify rapid developers, not necessarily the top performers.

Look at the list of sales people in your business unit. Using the criteria we discussed, identify the top three rapid developers. Write down examples of why you feel they are rapid developers. Take ten minutes on your own. We will discuss your choices as a group.

Now, please give the territory numbers of the people you feel are rapid developers and then give your rationale. After everyone has presented their list, we will discuss as a group to come to a consensus on our list of 10...

Next, we will identify other rapid developers and eliminate them from the study.

Thank you for your help. Any questions? Let me explain next steps..."

Appendix G

Rapid Developer Guide: e-mail

Rapid Developer Guide: e-mail

153

Background

Thank you for participating. First, let me give you some background information. As you know, your organization is cooperating with me by acting as a research site for my doctoral dissertation. The focus of my study is looking at how environmental factors impact the speed of individual's learning and development. The group that I will be looking at within ____ is the _____. The research ties in very nicely with your recent changes and hopefully will yield some information valuable to you. Your input (and the rest of the management team) is a very important part of the study.

Purpose

Our purpose is to determine as a group who the ____ rapid developers are. As (their managers) you are the best judges of that. I will be giving you some guidelines to help you make these selections.

Explanation/Rationale

To begin with, let me define rapid developer. A rapid developer is someone who has come the furthest the fastest relevant to new expectations. A rapid developer is someone who has learned new information and exhibited new behaviors relevant to the changes quicker than the rest of the organization. Ideally, these changes in behavior lead to results that align with the new expectations. PLEASE KEEP IN MIND THAT TODAY'S RAPID DEVELOPERS ARE NOT NECESSARILY TODAY'S TOP PERFORMERS.

Also, please remember that an important consideration is that no one is embarrassed by the research. No one other than you will know who has been designated as rapid developers. The research is designed so that I will never know the names of those designated as rapid developers or those designated as not-rapid developers.

Process

Let me explain the process. You and your peers will determine 10 rapid developers that meet a criteria. 10 other ____ will be chosen at random to represent a not-rapid developer sample. I have trained another individual, _____, to conduct the interviews. ____ will ask a series of questions designed to determine the impact of environmental factors on learning and development. ____ will not know who falls into which category. All interviews will be transcribed and the transcriptionist will eliminate the name of the interviewee. Then I will use the transcripts to analyze the information.

___ has developed and sent you a list of all the ___ and assigned a number to each individual. We have eliminated any ___ who have been hired since ___. In our communication please refer to the individuals by their number, not name. I don't want to know who you are talking about.

After the group has made the selection, ___ will select a sample of 10 others randomly. ___ will then add (and mix) the names from both groups together and create a list of 20 names and phone numbers. Individuals won't be identified as to which group they are in. ___ will pass this list on to the ___ (the interviewer).

The time frame I would like you to consider is from ___ till ___.

Changes in Expectation

From the background interviews I have conducted, it sounds to me as if the major changes in your expectations of ___ are: _____

Are these in line with your thinking? Please let me know right away if you disagree.

Exercise

Remember that our purpose is to identify rapid developers, not necessarily the top performers.

Look at the list of ___. Using the criteria we discussed, identify the rapid developers. Write down examples of why you feel they are rapid developers. Take ten minutes on your own. We will discuss your choices as a group.

Now, please give me the numbers of the people you feel are rapid developers and then give your rationale. After everyone has presented their list, we will discuss as a group to come to a consensus on our list of 10...

Next, we will identify other rapid developers and eliminate them from the study.

Thank you for your help. Any questions?"

Appendix H
Initial Interview Question Guide

Interview Question Guide

"Thank you for taking time to participate in this research. Your input is important. The purpose of this research is to look at the factors that impact learning and on-the-job performance. Our conversation is confidential—all the information will be pooled and no one in the organization will know who said what. I am tape recording our conversation so that I can concentrate on the conversation and not worry about writing accurate notes. No one else in the organization will see or hear your comments. After all the research is completed the findings will be given back to your organization and hopefully actions will be taken that makes things better and easier for everyone. Any questions?"

- Please describe your job responsibilities.
- I understand that your organization is focusing on____(new initiative). What was the reason for it? Why is it important?
- Please walk me through the history. When did this start? Who was involved? What happened next? How have you been involved?
- How is it going? Why?

Now I'd like to shift gears and talk specifically about the learning events.

- What has helped you make the changes faster? Why? Examples. Who involved? What else?
- What has hindered you? Examples. Why? Who involved? What has been the impact? What other obstacles do you see?
- What have you done to get around those obstacles? Examples. How successful? Why?
- What has been the impact of the changes on your job?
- Regarding the changes, what does management expect you to do differently? How do you know? How is that communicated? By whom?
- What feedback do you receive regarding how well you make the changes? How? From whom? How often? How accurate is it?
- How are you recognized and rewarded for making the changes?
- How do you know when you are doing a good job?
- What's the secret of getting promoted in this outfit? Are more people promoted for doing good work around here or are they promoted more for their politics?

Initial Interview Question Guide

- Are you expected to spend a minimum number of days per year in training?
- Let's say that a peer of yours had just attended a seminar recommended by the president of your company. Your peer felt it was a complete waste of time and money. On the return home, your friend finds himself sitting by the company president on the airplane. Would he volunteer that the training was a waste of time? If yes, how would the president react? If no, why? What would your peer do if he was asked specifically by the president how the training went?
- If you needed help, are there three people that you would feel comfortable calling and asking for their support?
- We've been talking about doing new and different things in your work unit. Besides yourself, what other 3 people are really going gang busters? What 3 people haven't done a thing?

"I really appreciate your candid input and the time you've spent. This is very helpful. Anything else that you feel would be helpful for me to know? Anything that I should have asked and didn't?"

"Thank's again. Please call me at ____ if you think of something else that would be helpful. May I call you back to follow-up on something if necessary? I very much appreciate it. Good bye."

Appendix I
Final Interview Question Guide

Final Interview Question Guide

159

Hello, I'm _____. I believe you received an e-mail from (organization sponsor) saying that I would be calling.

I am conducting research for _____. I understand that your job has undergone a lot of change, and I have been asked to look into the factors that impact learning and on-the-job performance. Your input is important, and I appreciate you taking time to participate. Can we talk now, or should we schedule a phone appointment for later?

Our conversation is confidential—all the information will be pooled and no one in the organization will know who said what. I am tape recording our conversation so that I can concentrate on the conversation and not worry about writing accurate notes. No one else in the organization will see or hear your comments. After all the research is completed the overall findings will be given back to your organization and hopefully actions will be taken that makes things better and easier for everyone. Any questions?"

Clear Performance Specifications

What are _____ expectations of you? What else? Any other expectations?

It sounds like lots of things have changed these past two years. Which of these expectations are different than in the past? How so? Any other changes in what you are supposed to do?

Are these new expectations clear? Why do you say that?

Are the new expectations realistic? Say more.

Who was involved in determining these new expectations? How?

What's the reason for all the changes any way?

Adequate Resources

160

What resources have been provided to help you meet your new expectations?
What else?

Are resources adequate? Explain. Give example.

Do you have the information you need when you need it? What
information do you need?

Do you have necessary staffing (manpower) to get the job done? Say more.

Do you have enough time?

Do you have the appropriate tools? What tools do you need?

How about training?

Overall, are resources adequate?

Who was involved in deciding what resources were needed? How?

Procedures/Workflow

It sounds like you have to supervise differently now than in the past. Is there
a specific process or special procedures laid out that you are supposed to
follow? If yes...how does it work?

(Note: expectations are the "what" and procedures/workflow is the "how")

Are the job procedures and workflow logical for the new way of ____?

Are there ample opportunities to supervise the new way?

Who was involved in determining this process? How?

What interferes with you getting the job done right? Who? When? Where?
Why?

Can your job be done without interference from other tasks?

Appropriate Consequences

161

What are the positive consequences to you when you achieve job expectations? Is that meaningful to you? Any other positive consequences (rewards or recognition)? Are they meaningful?

What are the consequences to you when you don't accomplish your expectations? Is that meaningful to you? Any other negative consequences? Are they meaningful?

Are consequences aligned to support the new desired ways of supervising? Say more.

Overall, are consequences appropriate?

Who was involved in deciding these consequences? How?

Quality Feedback

What feedback do you receive on how well you are meeting expectations? How? From whom? What other feedback?

Is this feedback relevant?

Is the feedback accurate?

Is the feedback timely?

Is the feedback specific?

Is the feedback easy to understand?

Overall, is the feedback of adequate quality?

Who was involved in developing the feedback system? How?

Competence

162

What is the secret of getting ahead at ___?

Is performance more important than political connections in getting recognized and rewarded?

In ___, ___ A works 70 hours a week and gets very good results. ___ B works 40 hours a week and gets outstanding results. Which area leader will be seen as the more valuable? Why?

Continuous Learning

If someone comes up with a new idea, implements it and it fails completely, what reaction from the organization would you expect? Do you have an example?

What percent of your time dedicated to work is spent on personal development?

Candor

Let's say that a fellow area leader had just attended a seminar recommended by (the organization sponsor). The ___ felt it was a complete waste of time and money. As luck would have it, on the return home, the area leader finds himself sitting by (the organization sponso) on the airplane. Would he/she volunteer that the training was a waste of time? If yes, how would (the organization sponsor) react? If no, why? What would the ___ do if he/she was asked specifically by the (the organization sponsor) how the training went?

- Are people routinely asked to reflect on what they are doing and why?

Community

If you needed help, are there three people that you would feel comfortable calling and asking for their support?

There is a lot of talk going on about working in teams. In reality, how well are people actually working together? Example.

163

We've been talking about doing new and different things. Besides yourself, what other 2 ____ are really going gang busters within your (work unit)? What 2 people have done the least to change?

I really appreciate your candid input and the time you've spent. This is very helpful. Anything else that you feel would be helpful for me to know?

Anything that I should have asked and didn't?

Thanks again. Please call me at _____ if you think of something else that would be helpful. May I call you back to follow-up on something if necessary? I very much appreciate it. Good bye.

Appendix J
Participant e-mail

Participant e-mail

e-mail to Research Participants (sent from the organization sponsor after samples were selected)

___ is cooperating on a doctoral research project that is looking at the factors that impact learning and personal development. Along with contributing to this study, we also expect to learn some things that will help us do things better.

You are a member of a small sample that has been selected to participate. Please cooperate fully and be open and honest in your discussion. Your comments will be pooled with others and will remain totally confidential.

___ will be conducting the interviews. He will be phoning you soon to schedule an interview with you over the telephone.

If you have any questions, please contact me or ___ at _____.

Thank you for your participation.

Appendix K

Interviewer

Interviewer: Skills Training

Interviewing Skills Training

October 21, 1996

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1

The Interviewing Process

- **Position**
 - » explain the purpose and importance
 - » put participant at ease
 - » gain commitment
- **Gather information**
 - » complete coverage
 - » quality information
- **Close**
 - » confirm value and thank participant

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2

The interviewing process has three steps: position, gather information, and close.

Positioning the interview is critically important. People value their time and they must see enough value in your request to give some time up. When you position you first explain the purpose of the interview and its importance. Your objective is to gain a commitment to be interviewed immediately or at a set date and time in the future. In order to gain that commitment, you must put the participant at ease and make them feel that you can be trusted to keep your work.

When you gather information, you are concerned about both quantity and quality. Quantity meaning that all the important areas of the research are explored. Quality in that there is enough elaboration and explanation to add meaning and understanding to the information.

The closing is brief but important. It confirms the value of the interviewer's comments and explains next steps. The final part is thanking the participant for his/her valuable time.

Interview Success

- Following the outline
- Use of good communication skills
- Knowledge of the participant's reality
- Voice quality

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3

Four factors determine interview success.

Probing

- **Open Probe**

- » When . . . you want to allow the participant to respond freely in order to gain general information
- » When . . . you want to encourage expansion

- **Closed Probe**

- » When . . . you want to limit the participant's response to uncover specific information
- » When . . . you want to confirm your understanding

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4

Probes are the interviewers most powerful tool. Used correctly, they will provide the complete, rich information necessary.

Open Probes

- Open Probes usually begin with the following: what, when, where, why, and how. Other statements that serve as excellent open Probes often start with "Oh?", "Tell me," "Show me," and "Say more about that."

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5

Examples of open Probes include:

- Tell me what happened next.
- How did you make your decision?
- How was the reinforcement conducted?
- Describe who all was involved.
- You mentioned a meeting. What happened there?
- Why?
- Tell me more about that.
- What was the impact of that?
- What is happening in your marketplace?
- When does the problem occur?
- Where do you want your business to be in five years?
- Why do you feel that way?
- Oh?
- Tell me where the problem occurred.
- Who was involved?
- Say more about that.
- What did your supervisor do?
- What do you mean?
- Say again.
- Who else attended?
- Describe the reaction, please.

Closed Probes

- **Closed Probes are probes that limit the range of a participant's responses to a yes or no, or a choice among alternatives. Closed Probes are useful for getting specific information and confirming understanding. Key words that help you to identify closed Probes include the following: is, are, do, does, did, has, have, had, or which.**

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6

Examples of Closed Probes include:

- So...is that right?
- Did that happen as a result of ...?
- Did you receive feedback on how well you were doing?
- Has that ever happened in the past?
- Was the coaching successful?
- Was anyone else involved?
- ...is that what you are saying?
- Are those consequences meaningful?
- Was that how it went?
- Did you have enough time?

Acknowledging

- **When**
 - » you recognize a customer's concern or apprehension
- **How**
 - » demonstrate empathy

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7

Acknowledging is useful to let the participant know that you understand his/her opinion or situation and that you can empathize with it. It is important to remember that empathy is different from sympathy. Sympathy means you feel sorry for someone's situation. Empathy means you can personally relate to it. You do not have to agree or sympathize with someone to Acknowledge. Many times you probably won't.

You should Acknowledge anytime you sense or anticipate participant resistance. Resistance may stem from misunderstanding or legitimate issues about the participant's situation. Acknowledging helps the participant rationalize the need to accept an action, even though they may not like it.

Acknowledging involves both verbal and non-verbal behavior. The tone of voice, inflection, and timing all impact how well the participant reacts to the acknowledgement.

Managing Resistance

- Resistance should be anticipated and planned for.
- In managing resistance you use both of the skills of acknowledging and probing.

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8

Here are some anticipated resistance statements and possible responses.

Too busy right now. I understand that right now is short notice. Let's schedule a time convenient for both of us. How does tomorrow evening around 6:00 sound?

I don't have time for this now...call me in a month. I know how you feel. Sounds like you have a lot of things going on. I'd love to wait a month if I could, but I'm under time constraints myself. I need to complete these interviews within the next 6 days. Is there any possibility we could work this in? How about...

How can I be sure that this information won't be used against me? I understand your concern. I'd feel the same way in your shoes. The purpose of the interview is to look at organizational factors that impact how people learn. To make sure that things are confidential the person who does the analysis won't even know your name. Your information will be coded by a number only.

45 minutes! I'll give you 10. I respect your time. Let's start up and at 10 minutes we can stop. At that point I'll let you decide if it valuable enough to continue.

Interviewer Training 10-21-96

175

Practice Telephone Interview: Background Information

- Interviewee is a Territory Manager (Sales Person) for (client company of Alexander's) (will have been with the company one year or less)
- Supposed to have received a memo from headquarters about receiving this call
- ____ sells equipment to auto repair industry.
- Getting salespeople up to speed quickly is vitally important to the company.
 - paid on commission
 - not successful early get discouraged and quit
- His boss is called a District Manager
- The District Manager reports to a Division Manager
- The Division Manager reports to the VP Sales and Marketing
- The Territory Manager will have been through sales training called ____
 - workshop put on by inside trainer
 - review training materials
 - District Manager's job to coach and reinforce skills on the job
 - *spend time riding with rep
 - *sales meetings
 - *talk on the phone
- The Territory Manager is supposed to buy their own van
- They are furnished equipment to demo product
- They usually office out of their home

Instructions

- Phone (and record) this interview with the researcher present
- Researcher will provide feedback
- Interviewer and Researcher will discuss ways to improve interview quality

FAX

176

October 18, 1996

TO: ---
FAX #: ---
FROM: Jim Alexander
SUBJECT: Preparation
PAGES: 5 (including this one)

Here is the information we discussed. Please call regarding questions.

(Fax contained proposed interview questions, Rapid Developer
Environmental Checklist, and directions to Alexander's house)

MEMO

177

November 7, 1996

TO: ---
FROM: Jim Alexander
SUBJECT: Research Project Materials

Here are:

- dictaphone with AC adapter
- telephone recording adapter
- two tapes recorded from Pharma Health conversations
- copy of Pharma Health Corporate SBU accountabilities & standards
- new interview guide for Pharma Health

In preparation for our 1:00 meeting this Sunday at my place, please review both tapes starting with the ___ tape (note: there are some gaps). I suggest that you note key points as you listen and also jot down questions to review when we get together. Also, please look over the new interview questions to see if you think they will work.

Please bring the tapes and the copy of accountabilites with you on Sunday.

As discussed, I will meet with Pharma Health personnel on Thursday to determine the list of participants. If things go as planned you will be able to start the interviews on Friday the 15th.

Thank you. Please call me with questions.

MEMO

178

November 10, 1996

TO: _____
FROM: Jim Alexander
SUBJECT: 11-10 Meeting

OBJECTIVES:

- Get ____ comfortable:
 - with the interview process for Pharma Health
 - nuts and bolts
- Uncover any possible problems and address
- Review next steps

TOPICS:

- Background information on Pharma Health
- Practice interviews
- Logistics:
 - e-mail from ____ (organization sponsor) to be sent Thursday
 - ____ (organization collaborator), phone number ____ from Pharma Health will fax you the names and phone numbers of the research participants
 - ____ complete interview
 - *create code: Pharma Health = "A", the first interview becomes "1", etc.
 - *one interview per tape
 - *each tape (and box) labeled with name, code and date interviewed
 - ____ responsible to get interview tapes to transcriptionist (address and phone)
 - ____ answers question, reviews transcripts, tapes as necessary
 - ____ gets transcripts to Jim for analysis

12-6-96 Meeting with ____

179

OBJECTIVES:

- Review project status
- Problem solve
- Plan next steps

TOPICS:

- Pharma Health
 - what has gone well and what hasn't
 - share analysis approach
 - feedback on interview findings
 - plan next steps
- Mega Power
 - share background information
 - *literature
 - *taped interviews
 - *interview summaries
 - *discussion
 - next steps
- Uptime Inc.
 - share background information
 - *literature (have requested)
 - *taped interviews
 - *interview summaries
 - *discussion
 - next steps

NEXT STEPS:

-
-
-
-
-

December 11, 1996

180

TO: ---
FAX #:
FROM: Jim Alexander
SUBJECT: Interview Analysis
PAGES: 1 (including this one)

---'

I've completed analysis of Pharma Health interviews 17 through 20. Overall, look good. Just one case where the information is incomplete.

A20: Candor-said what they might do-didn't answer the question.

A20: Appropriate Consequences: please ask the 'overall' question.

Thanks, ___ for all your help.

FAX

181

December 15, 1996

TO: ---
FROM: Jim Alexander
SUBJECT: Mega Power Questions
PAGES: 6 (including this one)

Here are the interview questions revised for Mega Power. I've tried to maintain the integrity of the questions, yet provide more depth and clarity.

Please review them and anticipate their effect using your Pharma Health experience and the Mega Power background information as a guide. Again, I believe the best way to continue to raise the quality of the interviews is clarify and confirm. When in doubt ask another question. Adding 5 to 10 minutes to an initial interview could save hours later on. Let's make a goal of no recalls.

Looking forward to talking with you at 10:00 tomorrow.

Thanks again for all your help.

PS The following questions are spread out over several pages. After we finalize them, let me know if you'd like them in a more condensed format.

(fax followed with the Mega Power Questions)

FAX

182

December 19, 1996

TO: ---
FROM: Jim Alexander
SUBJECT: Update
PAGES: 5 (including this one)

I'm glad to hear that the Mega Power interviews are progressing well.

I wanted to let you know that Jan and I are departing (driving) for Florida on Sunday and probably won't be back until January 5. I plan on doing some work on this trip and will be checking my voice mail and e-mail fairly regularly. If you need my input on anything, feel free to leave a message or try me in Florida at ____ (Jan's parents, ____).

As you'll see, I've also attached the interview questions for Uptime Inc. (although still waiting on input for selection of who to interview).

In addition, if you want some money before January 5, please let me know the amount by early Saturday morning and I'll send you a check.

Thanks, ____.

Talk to you soon.

(interview questions for Uptime Inc. followed)

Researcher Journal

183

3-18-97

Jim asked ___ about his thoughts from the interviews.

TOPICS DISCUSSED

___ said that the interviews ranged from 20 to 60 minutes with the average interview taking about 35 minutes. From the start of interviewing, they were all completed within 10 days. Overall, he felt that people were very candid in their comments. He attributes this to management's support. Said they used the interview as a chance to vent. Said that particularly the people from Mega Power had trouble with the questions about resources, he had to define what was meant. Throughout the interviews there was confusion between feedback and consequences-also some people weren't familiar with thinking about consequences positively. He confirmed that the questions didn't work as well with Uptime Inc. because the degree of change was perceived as much less.

1-7-97

Jim talked to ___ over the phone.

TOPICS DISCUSSED

Jim asked ___ to fax the names and the code he assigned the names back to Pharma Health and to Mega Power.

12-6-96

___ met with Jim.

TOPICS DISCUSSED

___ stated that he felt about 75% of Pharma Health participants were candid with him. Said that setting the appointments went well-he felt the note from ___ (organization sponsor) was responsible. Said he felt that the change in questions helped. He said that the first question on expectations often didn't get good response and he had to prompt. Felt he wasn't totally conversational, and sometimes it was awkward on the question asking who hadn't got it. Jim gave him feedback that he was very happy with his commitment and getting the interviews done quickly. Also that ___ took feedback well and had improved a bunch on his interviewing. The challenge was that not all areas of all factors were being covered, some responses were

speculations, and some questions were avoided by participants. The importance was to clarify and confirm. Jim walked ___ through each of the interviews and the gaps. ___ noted the gaps, discussed how to handle and committed to re-calling participants. Jim explained the status of Mega Power and Uptime Inc., gave ___ background material (taped conversations, typed notes, and company literature) and told ___ that Mega Power is the priority of the two.

11-18-96

Jim talked to ___ over the phone.

TOPICS DISCUSSED

Jim gave ___ feedback on the interviews and together they discussed the revised interview questions. ___ agreed to re-interview the two initial participants to fill in the gaps.

11-17-96

Jim reviewed the transcripts of ___'s first two interviews of Pharma Health's sales representatives. The transcripts didn't deliver on intended results. Feel that root issue is mainly interviewing skill with lack of contextual knowledge playing a part. Corrective action: re-write interview questions to be more directive (see file), discuss expectations with ___, provide more coaching/training if needed, and the two initial interviews will need to be supplemented.

11-10-96

___ spent two hours at Jim's place.

TOPICS DISCUSSED

The purpose of the session was to get ___ prepared to conduct the interviews (see memo in file). Walked through the logistics, the background on the Pharma Health participants, and discussed the questions.

NEXT STEPS

- ___ to continue to review information and prepare
- Pharma Health to fax him the names and numbers Thursday
- ___ to start phoning Thursday evening
- ___ to call Jim Friday morning

10-21-96

185

___ came over for training.

TOPICS DISCUSSED

Jim reviewed the process, the model, skills, etc. (see file) and did some role playing with ___. ___ conducted a practice phone interview with ___ over the phone. ___ and Jim listened to the tape and discussed ways to improve the interviewing. ___ made a major improvement in a few hours, however, has a long way to go.

NEXT STEPS

- ___ to practice
- Jim to do background work at Pharma Health
- ___ and Jim to meet again for practice on 11-10

10-17-96

Jim met ___ over lunch and discussed him doing the interviews for Jim's dissertation.

TOPICS DISCUSSED

Jim walked him through the objectives, expectations, project activities, estimated time involvement, and anticipated time frame (see file). ___ is ___ finance grad who is completing his HRD work at Western. He lives in ___ and works in ___ at the ___ doing ___ work. ___ was enthusiastic about the project saying that it could both help meet his requirements for his capstone project as well as be a good learning experience that tied into his goals. Jim talked about training and laid out some possible dates to start Pharma Health. Jim also explained the intent with the other organizations but also the realization that nothing was firm yet. ___ seemed flexible. He said that he wasn't working next semester to finish up his degree and would quit work early if needed to do the project. Jim also confirmed that he would pay all out-of-pocket expenses and ___'s tuition. Jim emphasized the importance of the quality of the interviews. It was agreed that Jim would send ___ the questions along with some other information on Friday and that ___ and Jim would get together on Monday to discuss and practice (will do a live interview if it can set it up). Will make a decision for sure based upon that session. This can greatly simplify things if it all works out.

___'s work number = ___

___'s fax at work = ___

NEXT STEPS

186

- Prepare and fax information to ____
- Prepare training

10-15-96

____ (Committee chair) left a voice mail saying that ____ will be calling regarding doing the interviews for the dissertation research. Said ____ would be an excellent candidate, was looking at doing this for his Capstone Project, and might be able to do the whole thing. For his purposes he would need to deliver a product for the department.

Appendix L
Transcriptionist Memo

DATE: November 11, 1996

188

TO: ---
 FROM: Jim Alexander
 SUBJECT: Dissertation Transcriptions

I am pursuing a personal goal—achieving my doctorate, and would like your help if this project fits your needs.

As part of my dissertation research, 48 taped interviews (16 from 3 separate companies) will be conducted by my associate _____. I anticipate the average interview to be about 45 minutes in length. The research is designed so that I will not know the names of the individuals being interviewed. Here is the process as currently planned:

- 1) Company representative passes on name and phone number of research participants to _____ (the interviewer)
- 2) _____ conducts (and records) the interview over the telephone
- 3) _____ writes the name of the individual being interviewed along with an assigned code on each tape and tape box (one interview per tape)
- 4) _____ coordinates with you in getting you the tapes
- 5) You transcribe the tape
 - eliminating the name of the individual being interviewed
 - typing in the code (such as "A1") each time the participant speaks
- 6) Accuracy is important—address any questions about interviews with _____ by phone at _____
- 7) You coordinate with me in getting me the electronic interviews
- 8) You will keep all tapes until the project is completed

Other Issues

- Tape audio quality should be high: all new tapes, phone adapter works well, little interference
- It is important that the interviews be transcribed and turned around quickly, so let me know if you have schedule conflicts
- I anticipate that 16 interviews (the first company) will be conducted between 11-15 and 11-22 with the other interviews to occur as quickly as I can move things along
- As discussed, you will be paid \$X/hour

Thank you.

Appendix M
Organization Collaborator Memo

MEMO

190

DATE: ___, 1996

TO: ---

FROM: Jim Alexander

SUBJECT: Dissertation Research Project

Thank you for helping me with this project. Because the design mandates that I can't know the actual names of the research participants, I can't do certain things. Your support of the following activities is very much appreciated.

I am working (via e-mail) with the ___ Managers to determine a list of "rapid developers". I will provide you with the identifying numbers for the list they come up with. This list of rapid developers becomes our first research group.

You will then take these names out of the ___ pool and also take out any individuals who were hired since _____. From the remaining individuals you will choose 10 at random. This group, "not-rapid developers" becomes our second group.

Next, please send an e-mail (from organization sponsor) to the twenty individuals selected.

Then mix up , then list out the 20 names along with their phone numbers and fax them to the interviewer, ___ (fax ___, voice ___). ___ will begin contacting participants immediately (I have attached a possible fax format).

___, please keep copies of all documents that reference names-numbers-and groupings and lock them away until the actual research is completed.

(Suggested fax format to interviewer)

191

TO: ---
FAX #: ---
FROM: ---

---'

Here are the names and phone numbers of our 20 research participants. Here is also a copy of the e-mail that has gone out to all of them.

Please start contacting them at your convenience.

If you have questions, please call me at ____.

Appendix N
Predictor Memo

DATE: February 7, 1997

memo

TO: (Committee Chair)
FROM: Jim Alexander
SUBJECT: **Alexander Dissertation: Identification of Organization B Rapid Developers**

My dissertation deals with utilizing the finding from the Rapid Developer Model to make hypotheses connecting environmental factors and development. Here are the hypotheses and my predictions based upon the findings:

1. Rapid developers perceive more environmental factors are present than not-rapid developers.

Conclusion: This list of 6 individuals are rapid developers:

5, 14, 4, 8, 15, 17

2. Rapid developers perceive that performance specifications are fitting.

Conclusion: This list of 6 individuals are rapid developers.

1, 5, 8, 14, 15, 17

3. The perception of the new performance specifications of rapid developers align with management's performance specifications.

Conclusion: This list of 3 individuals are rapid developers.

4, 8, 15

Appendix O
Organization Sponsor Finding Letter

February 10, 1997

Mr. ____ (organization sponsor)

Dear ____:

Enclosed is a draft of my February 28 presentation. Since you are my sponsor for the research, I wanted you to have a chance to review the information prior to anyone else seeing it.

The comments you'll see in the findings are the verbatim words of the _____. I've tried to select phrases that provide a fair representation of the opinions of the group. As we'd expect, there are a wide range of perceptions represented in our sample.

Having presented similar type information to other executives over the years I've learned that sometimes reactions can be quite strong. Qualitative research is powerful stuff that can evoke visceral emotions. As you read through the report please remember:

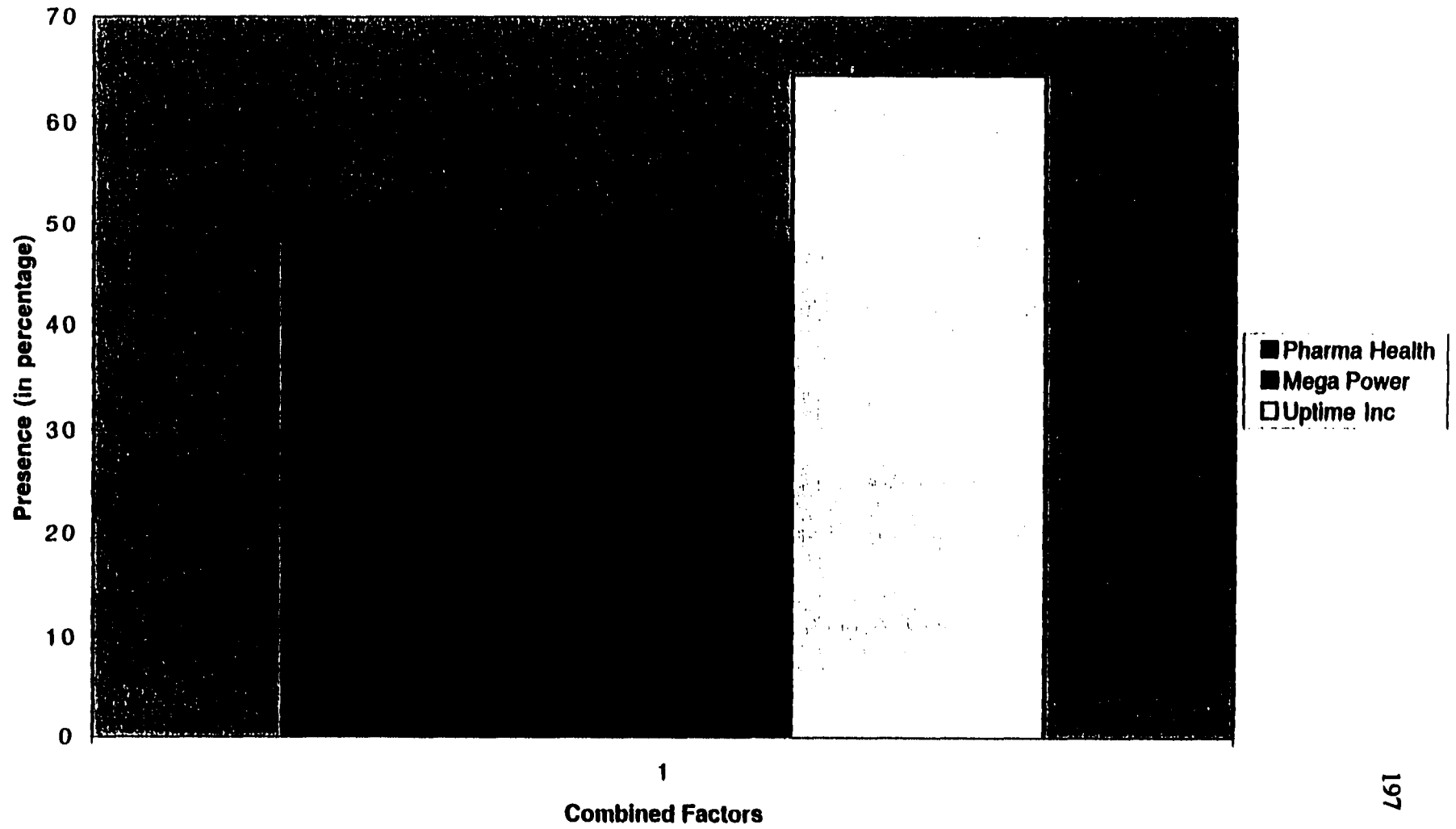
- given a chance to pontificate and vent—people will
- these are people's *perceptions* (not necessarily "reality")—don't take it personally
- major change is tough—almost all change efforts take longer than hoped and are much more difficult to implement than planned

I will call ____ to schedule a telephone appointment to discuss any questions or ideas for improvement. Thank you.

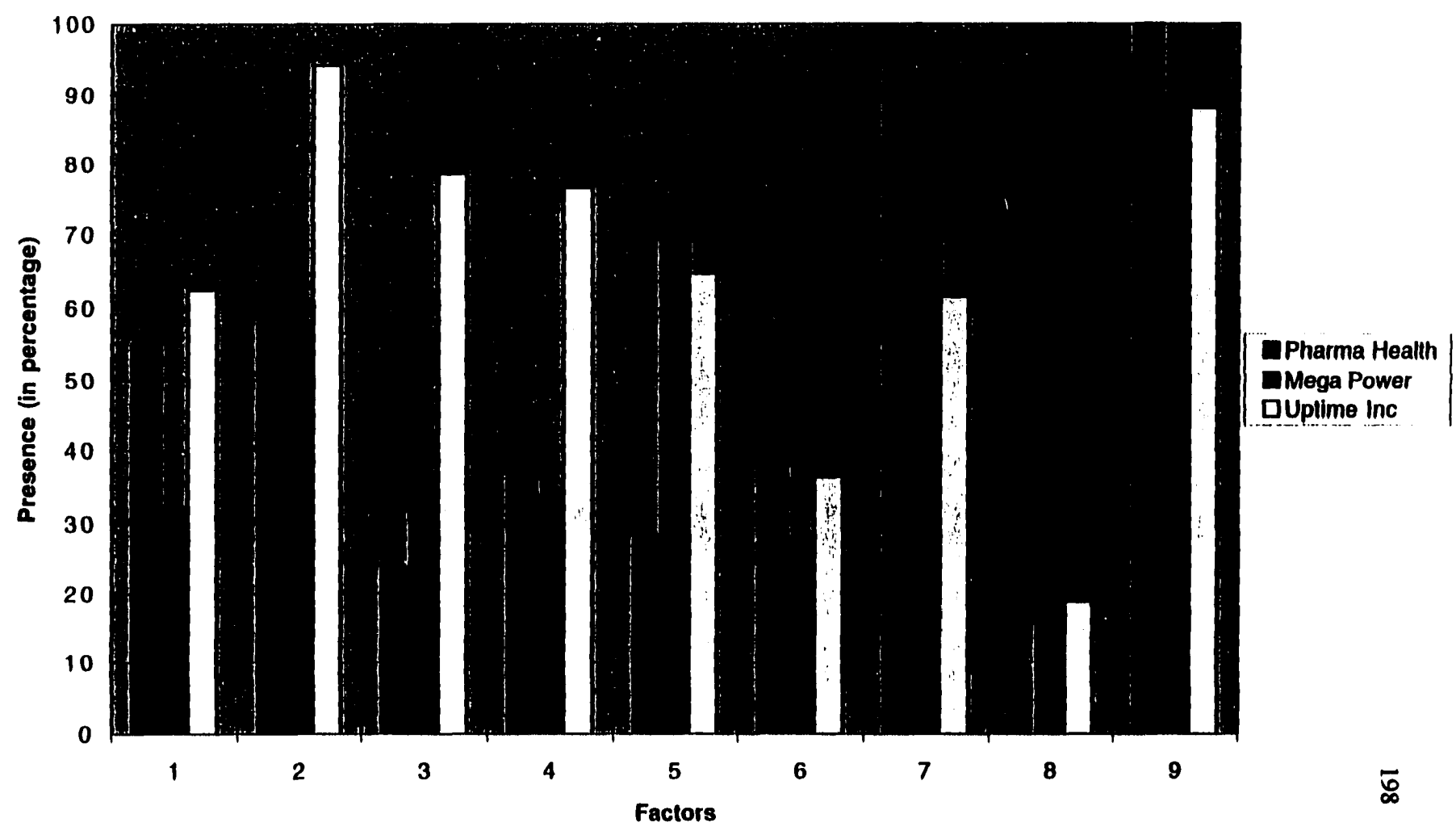
James A. Alexander
enc.

Appendix P
Charts of Results

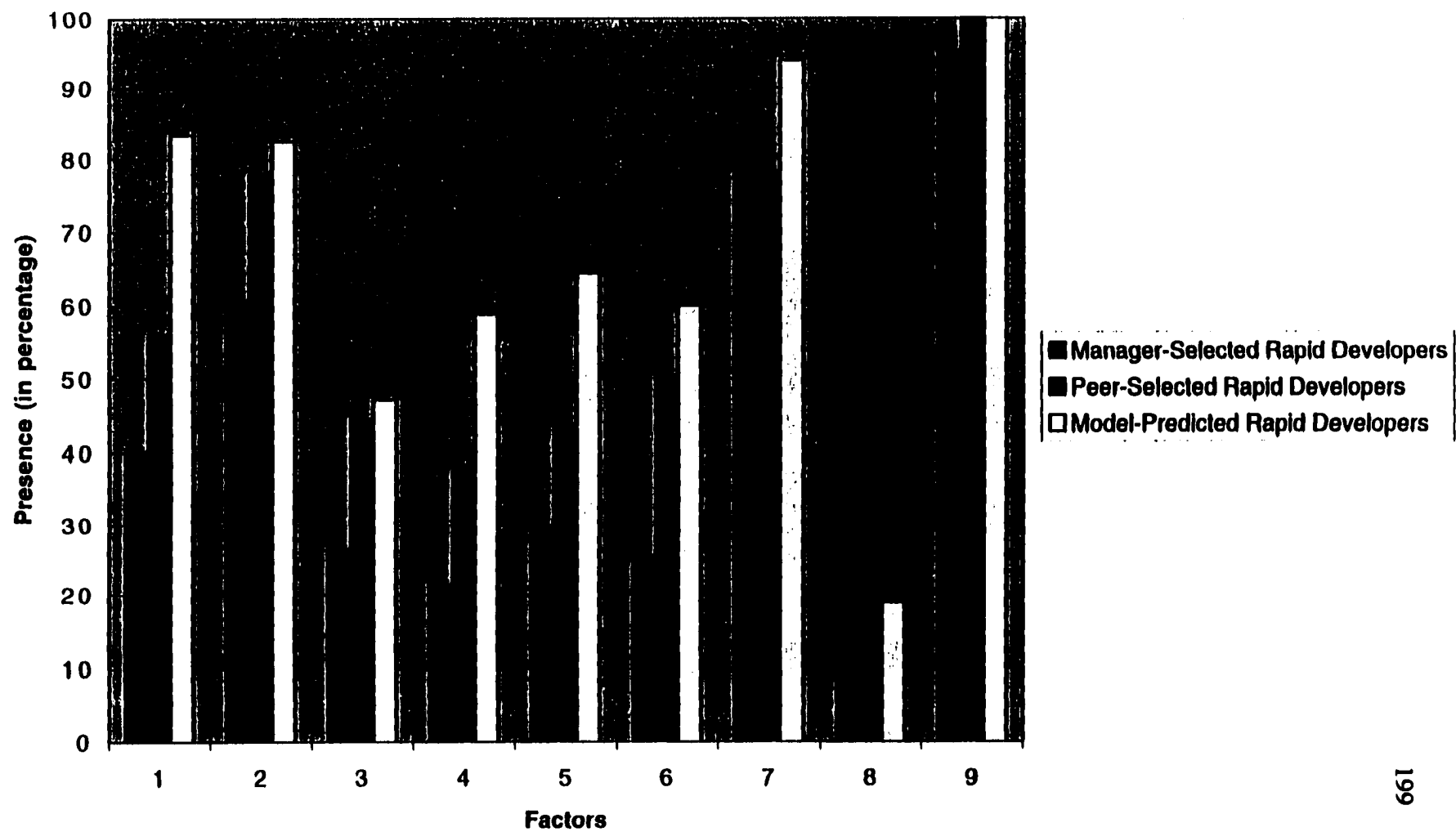
3 Organization Comparison: Combined Presence of Work Environment Factors



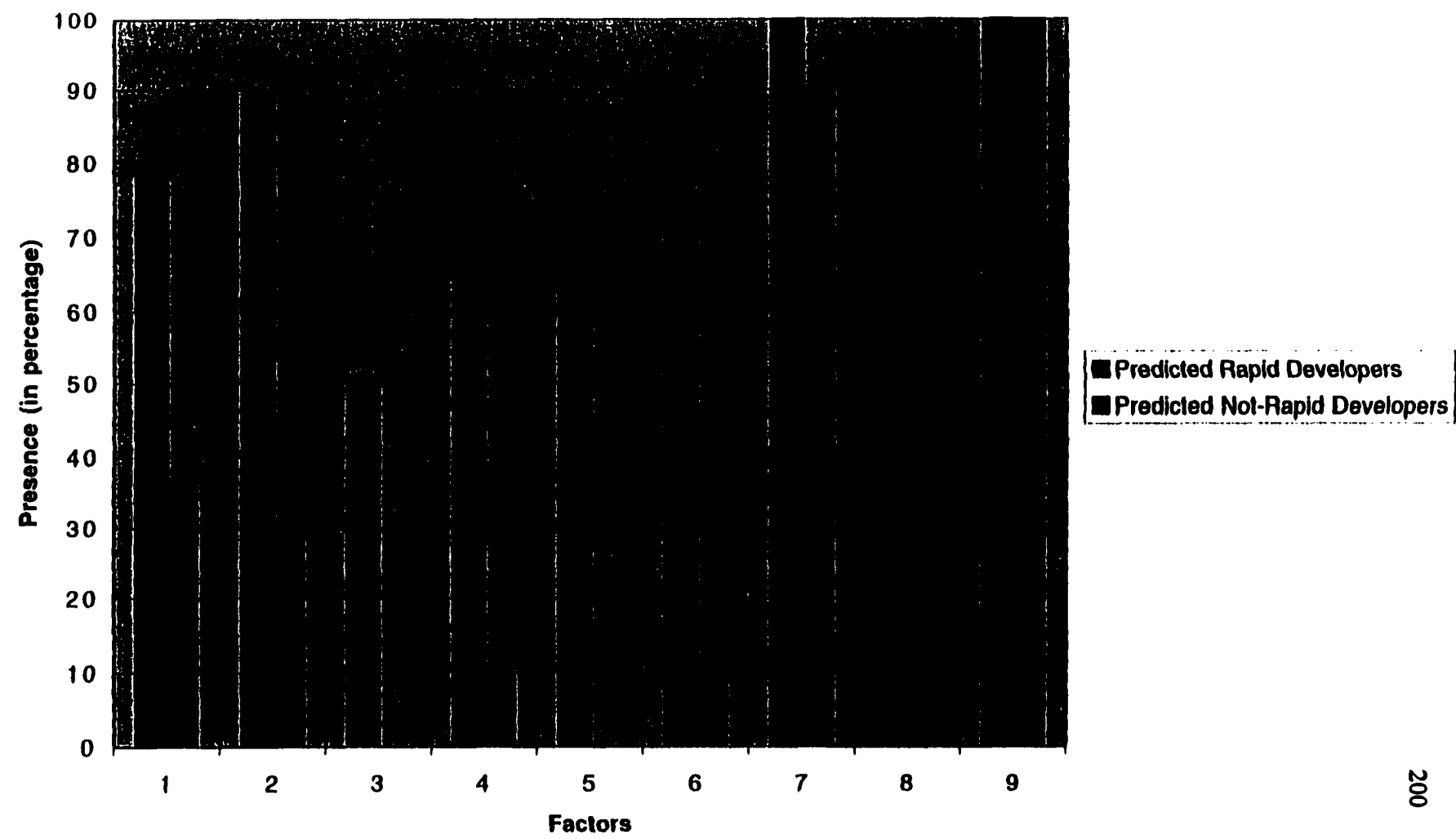
3 Organization Comparison: Presence of Work Environment Factors that Support Rapid Learning and Development



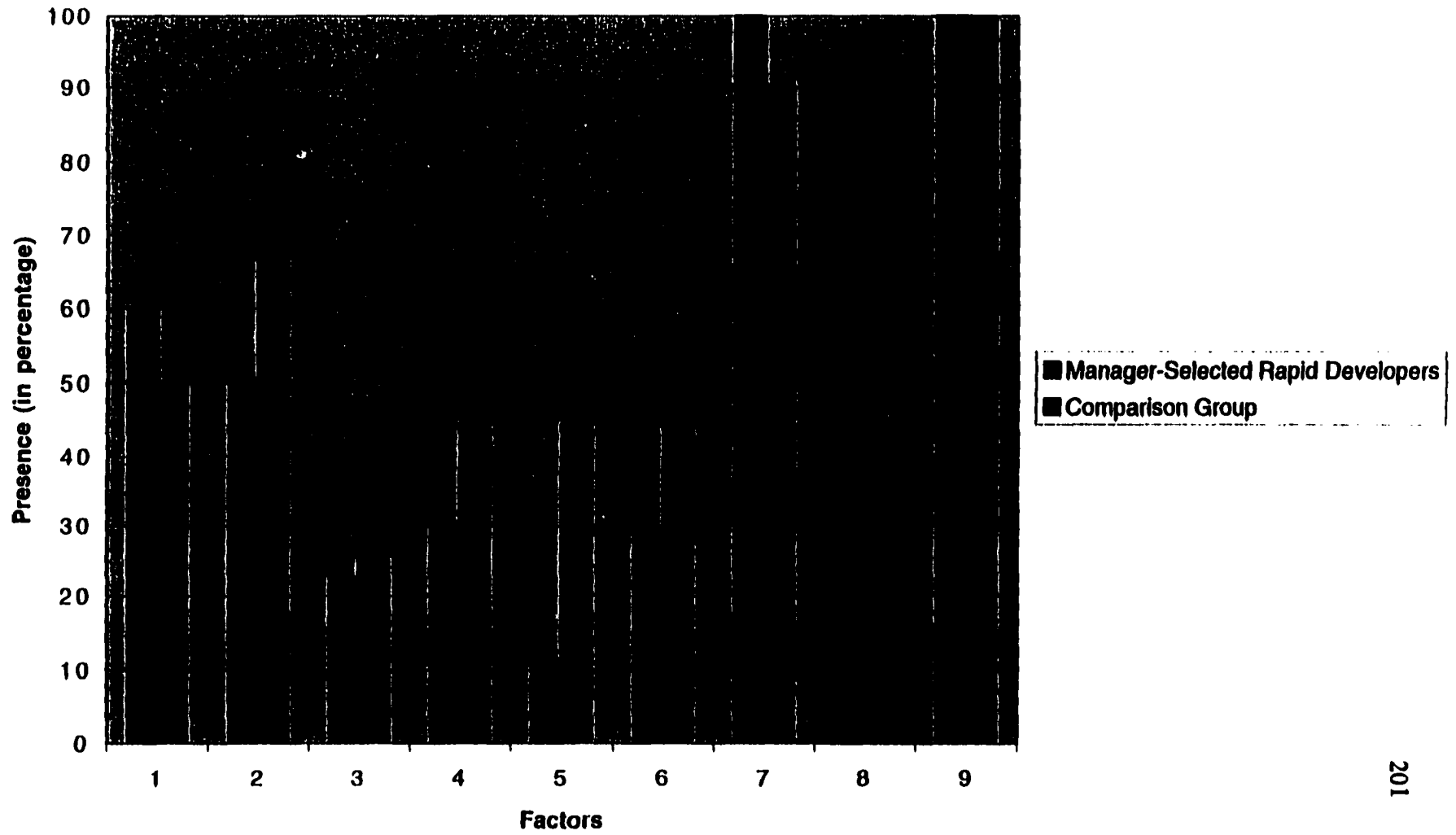
Rapid Developer Selection Comparison: Managers vs Peers vs Model



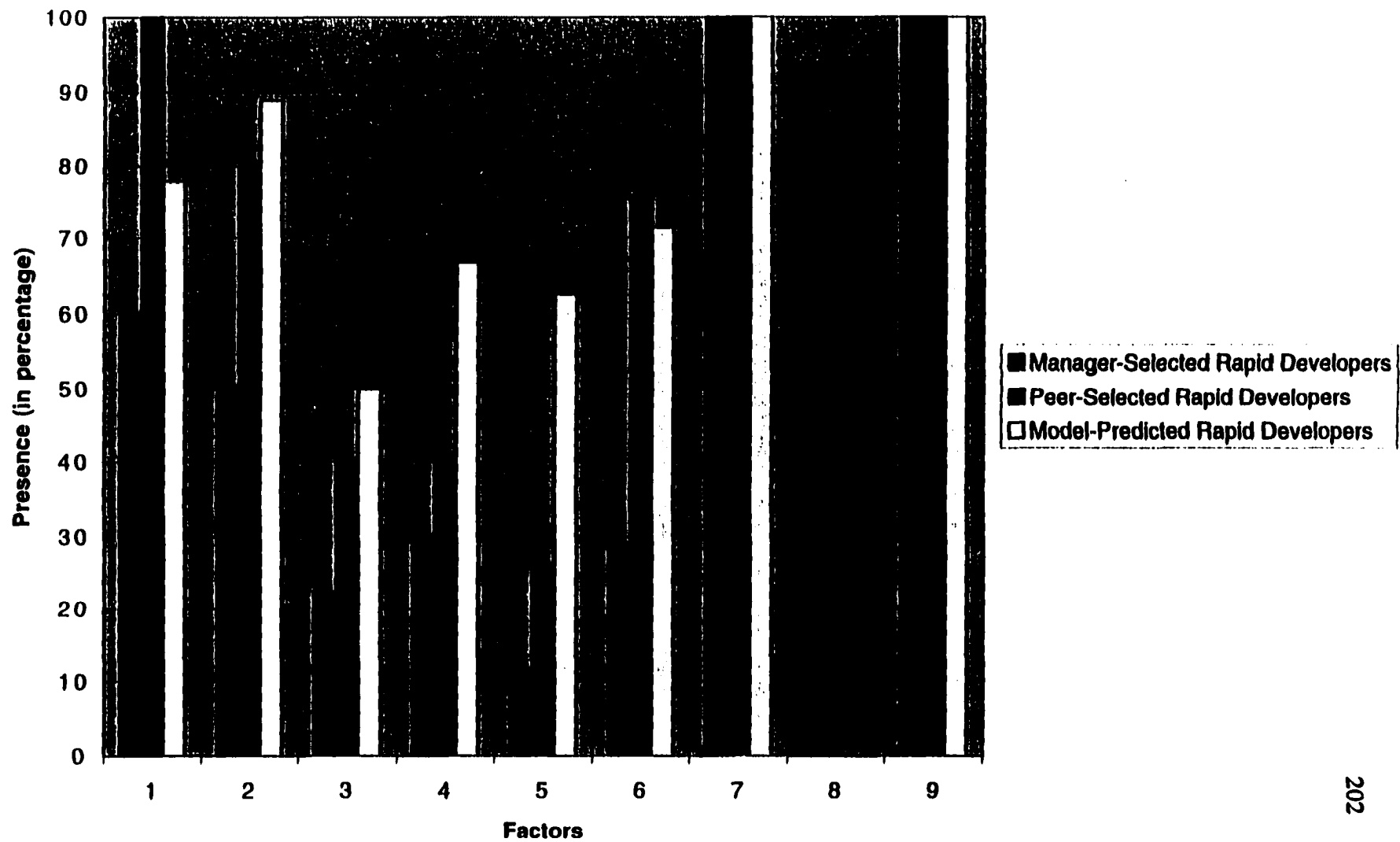
Pharma Health: Predicted Rapid Developers vs Predicted Not-Rapid Developers



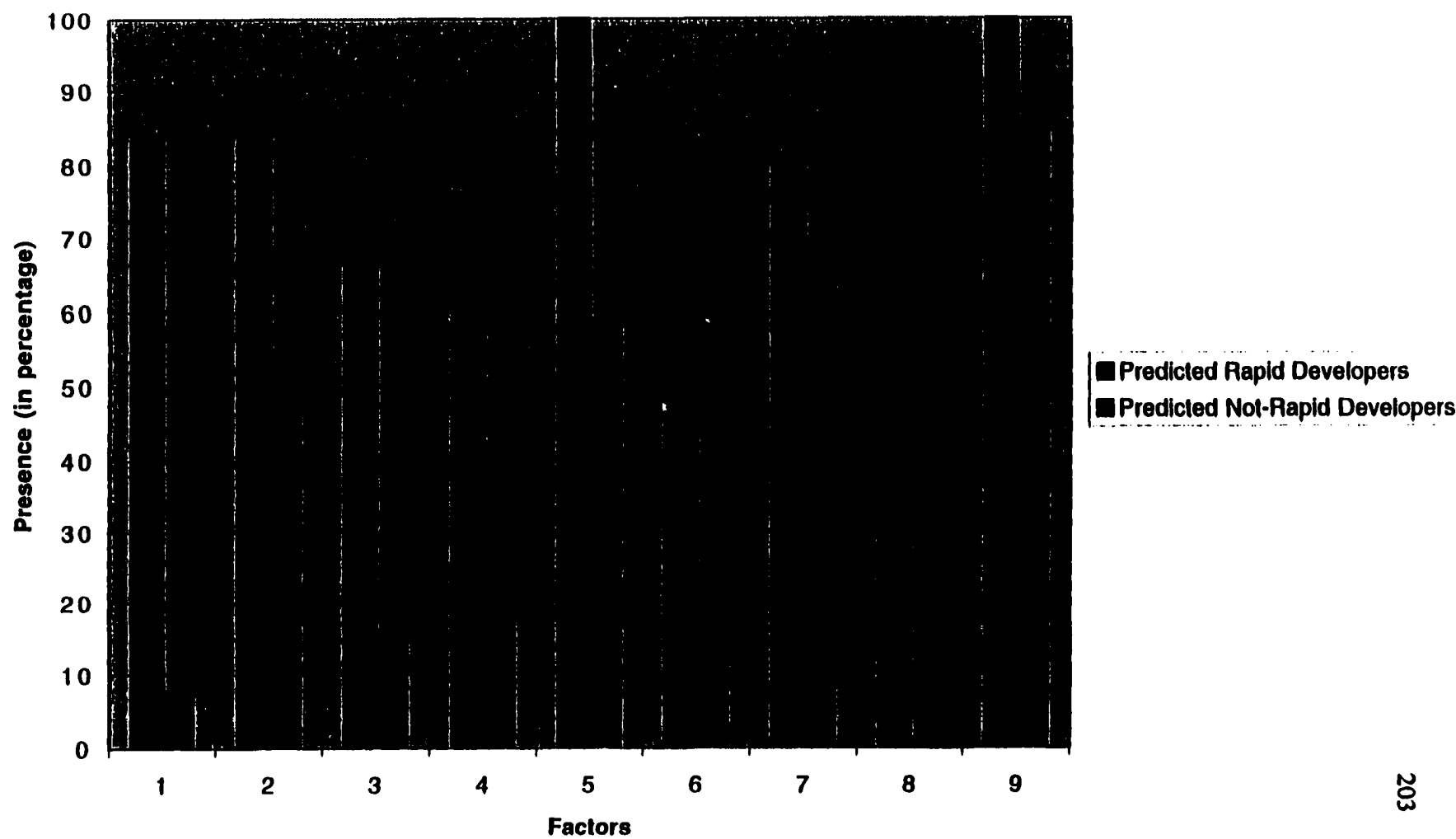
Pharma Health: Manager-Selected Rapid Developers vs Comparison Group



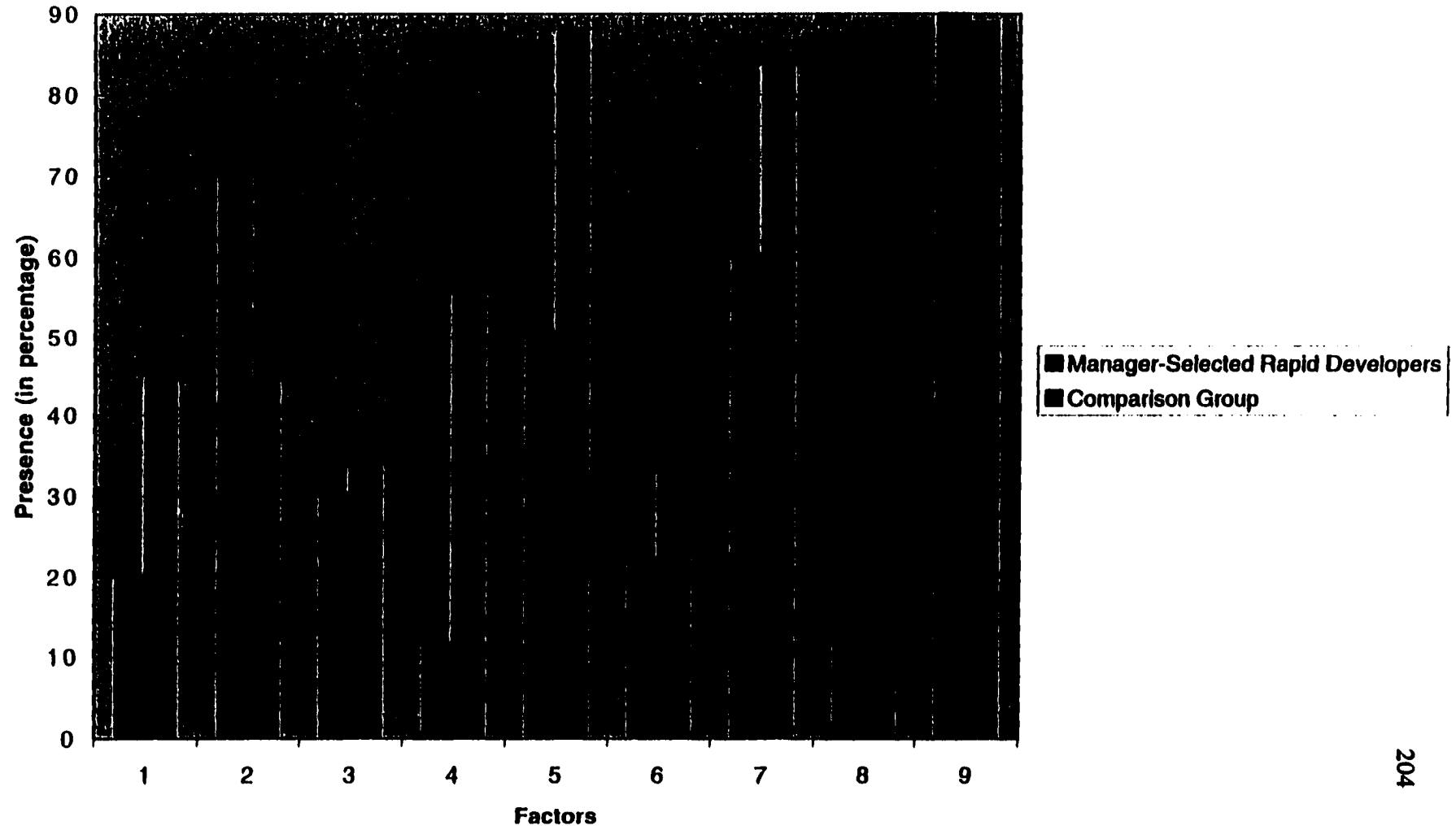
Pharma Health Rapid Developer Selection Comparison



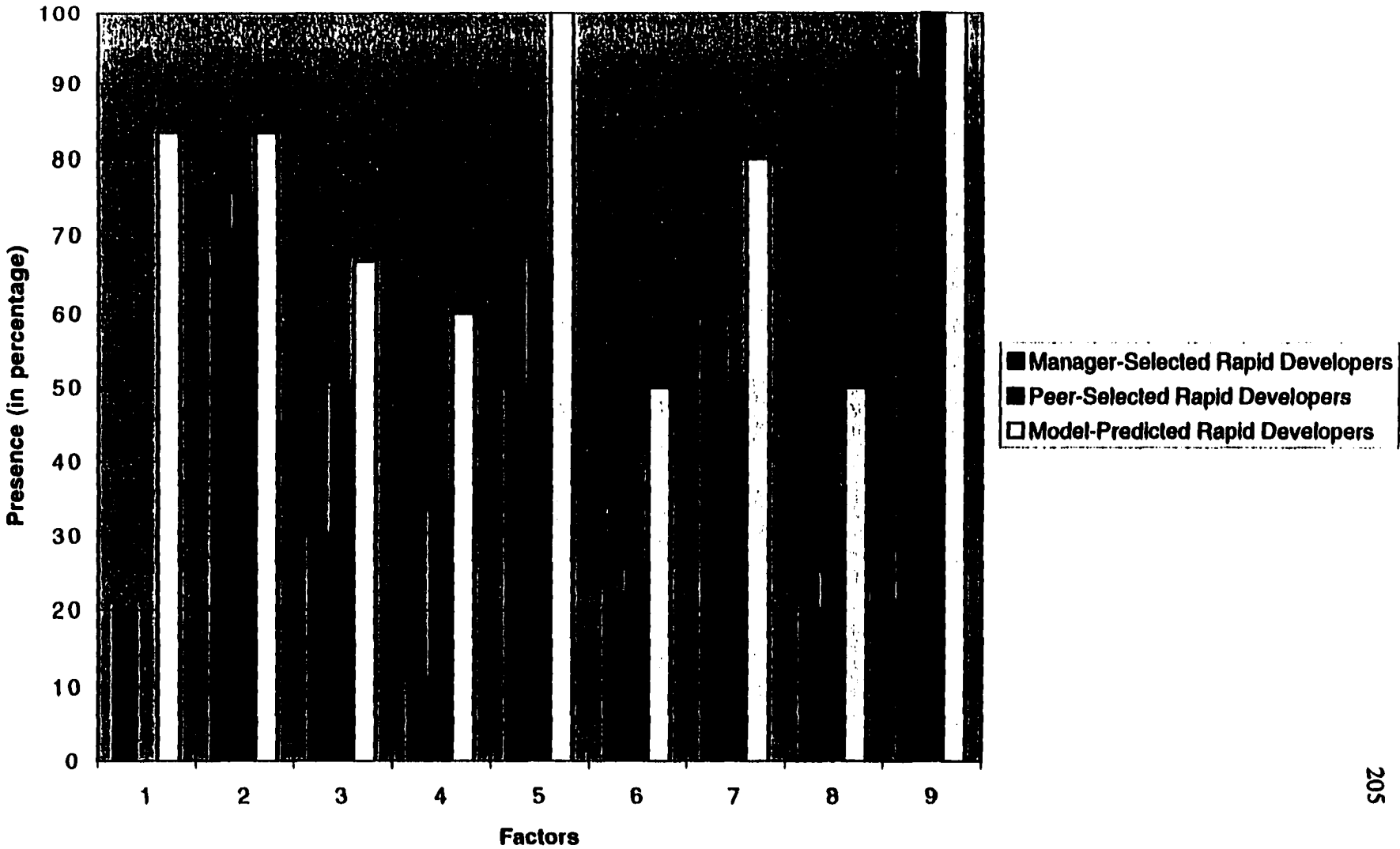
Mega Power: Predicted Rapid Developers vs Predicted Not-Rapid Developers



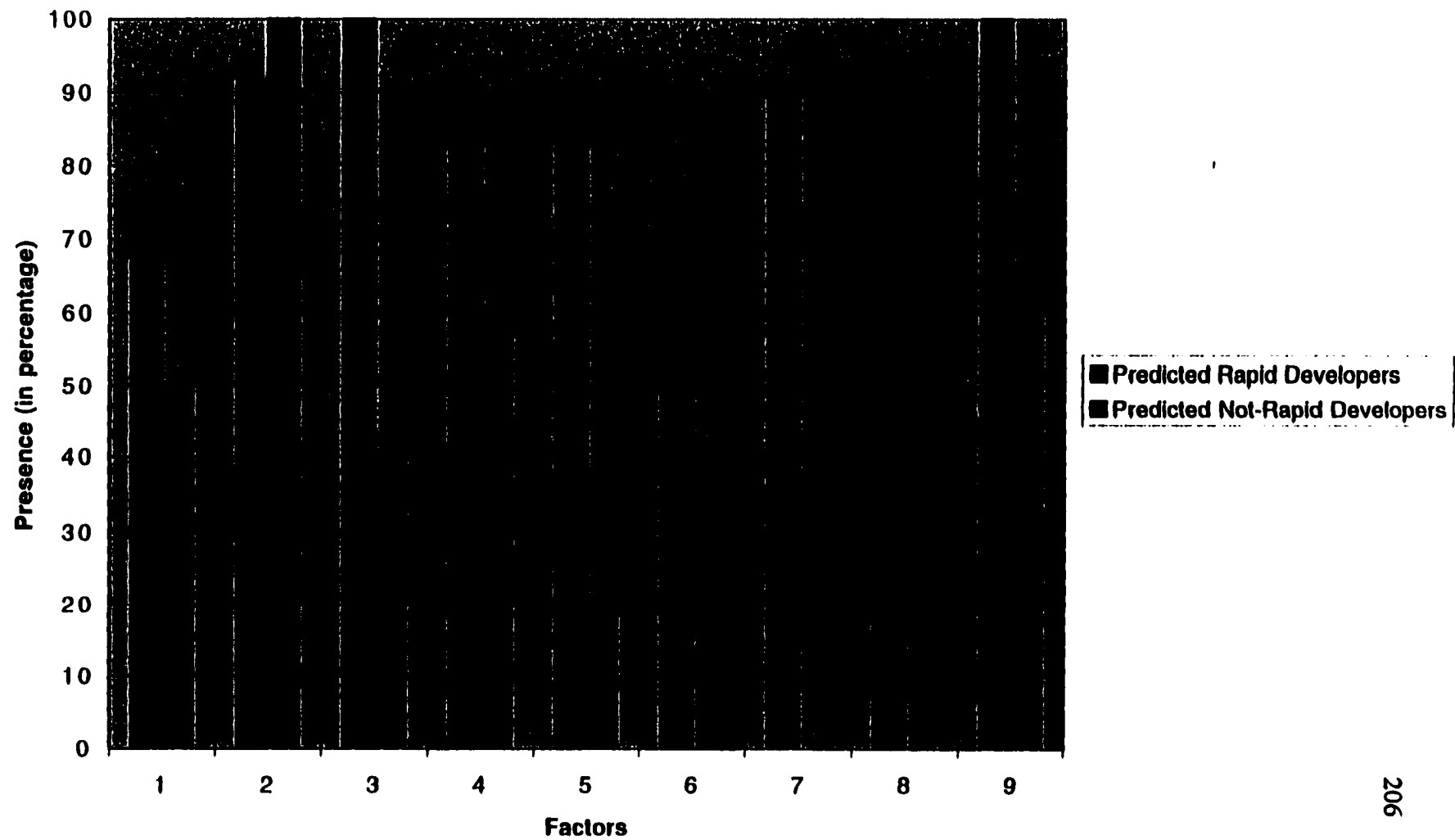
Mega Power: Manager-Selected Rapid Developers vs Comparison Group



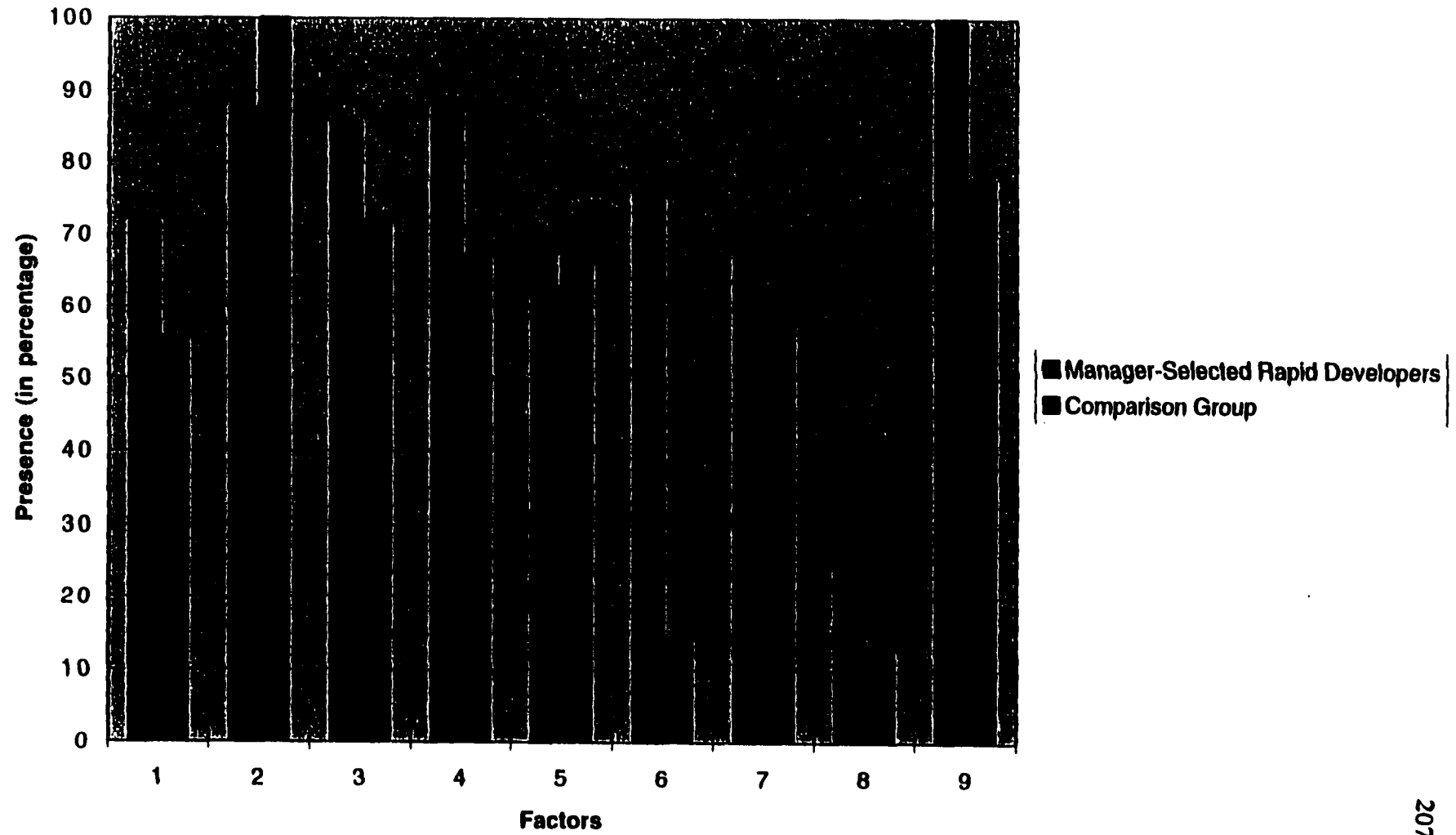
Mega Power Rapid Developer Selection Comparison



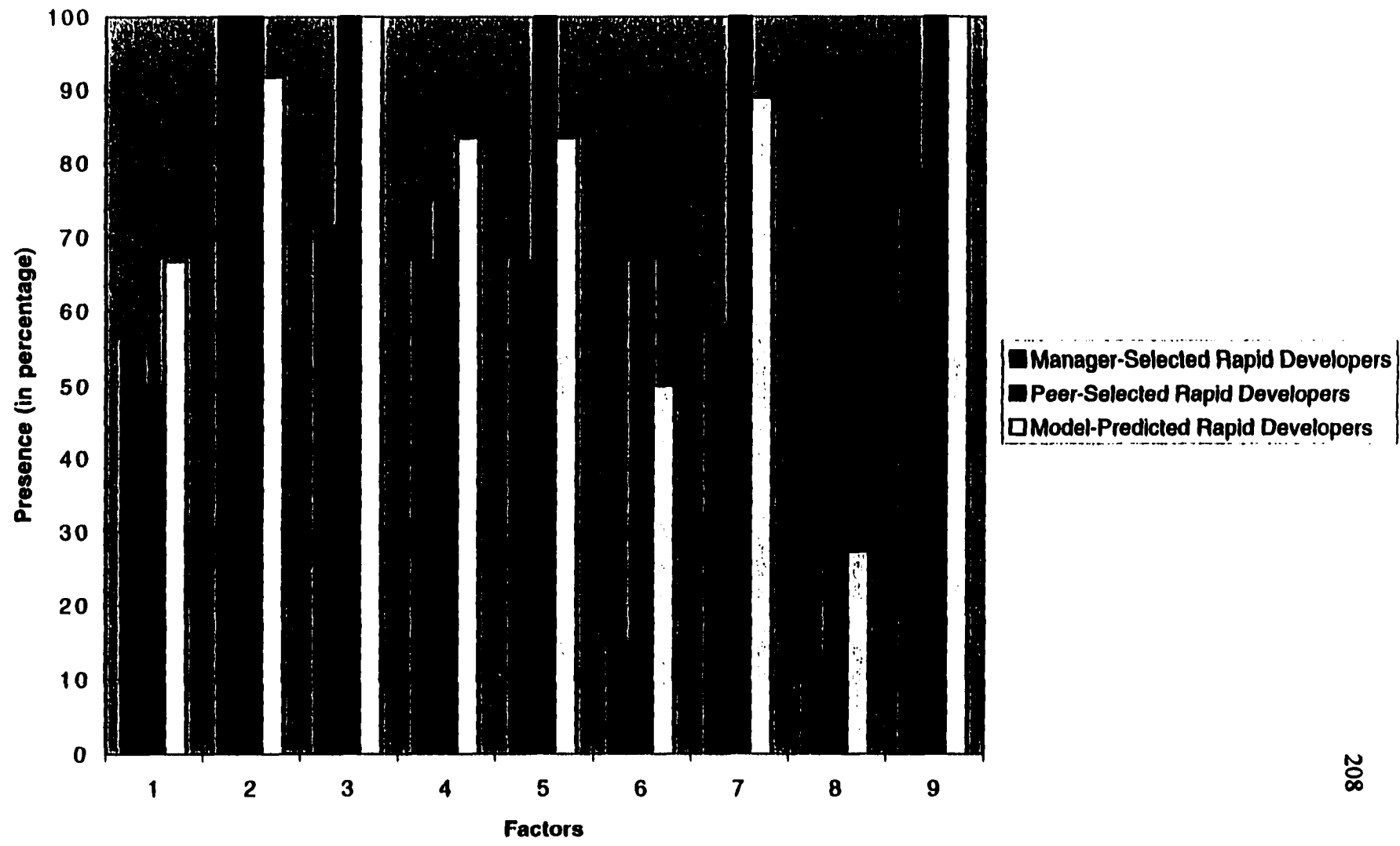
Uptime Inc: Predicted Rapid Developers vs Predicted Not-Rapid Developers



Uptime Inc: Manager-Selected Rapid Developers vs Comparison Group



Uptime Inc Rapid Developer Selection Comparison



Appendix Q
Research Findings Reports

Pharma Health US Research Findings

Environmental Impact on Sales Representative Learning & Development

February 28, 1997

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1

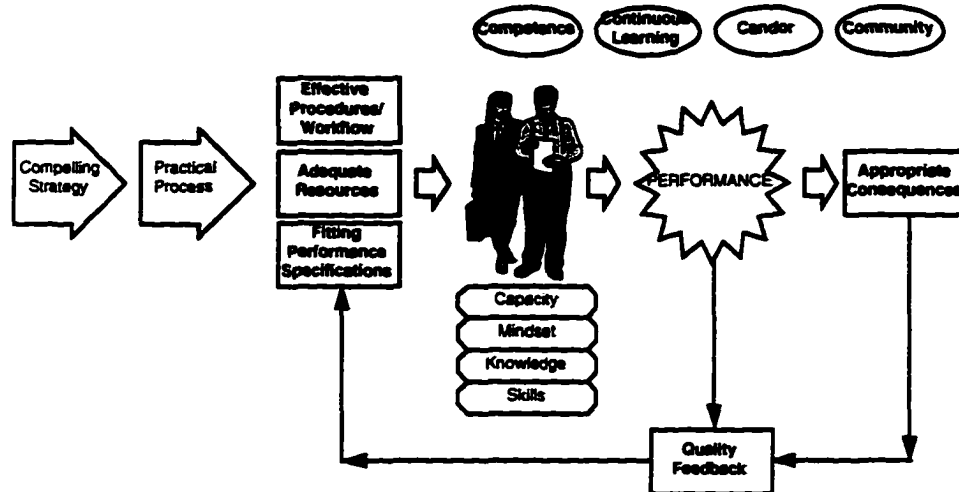
Background

- Importance of the study
 - » the speed of learning and development is a critical business issue
 - » most efforts are ineffective
- Purpose of the study:
 - » create a rapid developer model
 - » test the model in three organizations
 - » provide quality information for participating organizations to take action on

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2

Organizational Learning



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3

Hypotheses

- 1. Rapid developers perceive that more environmental factors are present than not-rapid developers.
- 2. Rapid developers perceive that performance specifications are fitting.
- 3. Rapid developers perception of new performance expectations align with management's.

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Procedures

- 1. Gather background/contextual information
- 2. Determine rapid developers
- 3. Determine not-rapid developer sample
- 4. Conduct interviews (20 participants)
- 5. Transcribe interviews
- 6. Sort interview data into categories
- 7. Analyze data for the presence of factors

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Quality Control

- Objectivity
- Reliability
- Internal Validity
- External Validity
- Utility

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Fitting Performance Specifications

- What are Pharma Health's expectations of you? What else? Any other expectations?
- It sounds like lots of things have changed these past year. which of these expectations are different than in the past? How so? Any other changes in what you are supposed to do?
- Are these new expectations clear? Why do you say that?
- Are they realistic? Why?
- What's the reason for all the changes anyway?

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Expectations

- They expect me to bring profitable business solutions to my team, to my SBU and overall to the business. I also think that while doing that they expect mutual effort is being made with our customers in order for the long term growth of their business.
- I'm expected to deliver a certain number of sales, certain sales increases. I'm expected to write a market plan, monitor that and adjust it as we go along. I'm expected to report on a regular basis. I am expected to do some personal development projects that I basically come up with.
- Well I guess they expect me to get out here and sell lots and make them some profits.
- To expand our market within our given species group; to target the key players, whether its multipliers or whether it's end users in our given geography, and to expand our market base by getting closer to the end user.

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What's Different?

- ...different from the past would be the areas of self direction, throwing you into situations where you are acting as a supervisor, even though you do not have supervisory authority. We do some interviewing, but we don't do the hiring. We take care of problems, but we don't do the firing.
- Probably that aspect of getting closer to the end user.
- Basically we absorbed all of the duties that the district manager had; i.e., budgets, one of the teammates do all the approval of the expense reports now. We basically do everything that the district management, or second layer if you will, used to do, so it has just been distributed to the teams.
- Well, you know our territories have changed and some of the things we're doing have changed, but basically I think the expectations of me from Pharma Health have stayed the same. Just get out there making sales calls. Sell more of our product, I think.
- I have a responsibility not only to myself, but now to my teammates and my leadership team as well as my customer and I guess in the big picture the whole organization.

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Specifications Summary

- 11 said clear
- 15 said realistic
- 11 said both clear and realistic

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Alignment

- **Major changes in expectations of sales reps:**
 - » delighting customers (as opposed to maximizing revenue)
 - » assuming personal accountability (instead of looking for someone to blame)
 - » taking charge (instead of waiting to do what told)
 - » supporting the team (instead of focusing on personal patch)
 - » building demand (instead of harvesting orders)
 - » developing new capabilities (not an option any more)
 - » running a business (not operating a sales territory)
- **1 Sales rep's perception aligned**

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Reason for the Changes?

- To position ourselves to be competitive and be in the marketplace 5 years from now, ten years from now, 15 years from now.
- I think most of the sales force, and certainly myself, view it as simply a downsizing situation that eliminated a whole tier of management.
- You know, they were talking about this book *Flight of the Buffalo* where business is changing and times are changing and self-direction is the way to go.
- Because (organization sponsor) said that this is what would happen.
- I have no idea.
- It's a money-saving thing, because I can see where we can short the staff in the home office if we shift these administrative things down into the sales force.
- the theory as I understand it is with individual accountability to a team, you may actually be more productive in the long run than just reporting to an individual and being accountable to that person.
- What they've told us is that we can do a better job of delighting our customers by going more species-specific.

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Adequate Resources

- What resources have been provided to help you meet your new expectations? What else?
- Are resources adequate? Explain.
- Do you have the information you need when you need it? What information do you need?
- How about staffing?
- Do you have enough time?
- Do you have the appropriate tools?
- How about training?

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What Resources Provided?

- ...there are a lot of new skills that I've learned since then that I would never have had just as a sales rep, such as negotiation skills...
- (Computer and reporting system) Right. They're lacking tremendously.
- (Information) Usually not, but that's probably because they just made up their mind on what a promotion is going to be...they decide on Tuesday and they tell us on Wednesday, and then it takes three weeks to get literature.
- (Coaching training) I thought it was one of the most valuable weeks I ever spent with Pharma Health personally.
- I don't see a lot of resources from corporate; it's basically whatever resources we can pull from each other that we can find out information to give back to the team.

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Resources Summary

- 11 said they had the information they needed when they needed it
- 9 said they had the necessary staffing
- 4 said they didn't have enough time
- 12 said they had the tools
- 8 seemed satisfied with the training
- 11 said that overall resources were adequate

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Effective Procedures/Workflow

- It sounds like you have to sell differently now than in the past. Is there a selling process or special procedures laid out that you are supposed to follow? If yes...how does it work?
- What interferes with you getting the job done right? Who? When? Where? Why?

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What Interferes

- ...we need to be able to put together our own programs without wondering and worrying, "Oh God, am I going to get Pharma Health's approval on this?"
- The biggest problem we have in the field right now is insecurity and probably three--insecurity, fear and frustration. And those things definitely have to be addressed. And right now they haven't been addressed very well.
- ...throwing you into situations where you are acting as a supervisor, even though you do not have supervisory authority. We do some interviewing, but we don't do the hiring. We take care of problems, but we don't do the firing.
- ...we feel probably less empowered than we did in many regards three years ago...
- Again, administrative work.
- I feel very strongly that we're spread too thin to do a really good job.

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Procedures/Workflow Summary

- 7 said major interference was time spent on non-selling tasks such as computer work, administrative tasks, responding to surveys, etc.
- 4 participants indicated that job procedures and workflow were logical for their new tasks and that tasks could be done with minimum interference

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Appropriate Consequences

- What are the positive consequences to you when you are meeting expectations? Is that meaningful to you? Any other positive consequences (recognition or rewards)?
- What are the consequences to you when you don't accomplish your expectations? Is that meaningful to you?

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Consequences

- (Positive consequences) Well sure. Sure. ____, that's a great deal that I enjoy and hopefully I get a pay raise when I do good.
- (Recognition and rewards) No.
- (Rewards and recognition) I would tell you "slim to none to very poor."
- In a half year I haven't seen anything.
- (____) I think the meaning has gone out of it. It has actually become a burr in a lot of people's hide because there are a lot of people who achieve that don't make it.
- At this point, we have no reward system. Individual rewards? None.
- I don't know. We'll have to battle that--we could all have better answers to that after we go through the evaluation process this year. We have not been through that yet, so we have no idea what to expect.

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Consequences (continued)

- I think that the team concept is fine, but when you start having members of the team affecting the wages that you get, your career path, and so forth, I don't. I think that's detrimental to the group.
- I could go out and set the highest goal in the SBU, achieve that goal, and I wouldn't be paid any differently than the bum that sat at home all week.
- Basically we've pretty much got a socialized bonus program.
- I really don't know. I hate to say I don't know; I feel like I should know,
- The bonus system in my opinion is extremely unrealistic... I mean people looked at it from the very beginning and said, "There is absolutely no way in hell we could ever make that."

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Consequences Summary

- 3 said they didn't know what the consequences were
- 4 said no positive consequences (other than internal)
- 5 said minimal or no negative consequences
- 9 commented on the ____ (3 positively and 6 negatively)
- 5 mentioned the bonus program (2 positively and 3 negatively)
- 7 said overall the consequences were appropriate

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Quality Feedback

- What feedback do you receive on how well you are meeting expectations? How? From whom? What other feedback?
- Is this feedback relevant? Accurate? Timely? Specific? Easy to understand?

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Feedback Received

- (Accurate and relevant) Most definitely.
- I haven't received a whole lot.
- We get very little positive feedback, though. I'll mention that to you. I think it would break our boss' arm to ever tell us we did a good job. (Relevant) I think it's a better situation than we've had in the past where you were relying solely on one individual to evaluate you.
- It's been pretty positive for the most part because we try to share our successes and try to dwell on the positive because with any reorganization it's really easy to get negative.
- (Adequate) Within my pod, yes. But outside of that, I'd say no.
- Virtually none.

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Feedback Summary

- 4 were positive about 360's
- 4 were negative about 360's
- 6 said they received no or very little feedback on performance
- 5 said that overall the quality of the feedback was adequate

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Competence

- What is the secret of getting ahead at Pharma Health?
- Is performance more important than political connections in getting recognized and rewarded?
- In Pharma Health, sales rep A works 70 hours a week and gets very good results. Sales Rep B works 40 hours a week and gets outstanding results. Which sales rep will be seen as more valuable? Why?

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The Secret

- (Secret) I don't know.
- (Secret) I think the secret of getting ahead number one is to work your tail off.
- (Secret) Who you know.
- (Performance) Yeah, I think so.
- (Performance) I doubt it. I guess I say that because the non-performers are still being paid the same as I am, so I guess I would lean towards probably not.
- Performance under this scenario now, as of this year, is more important.

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Competence Summary

- The secret
 - » 6 didn't know
 - » 6 gave responses that indicated some element of performance
- 6 said that performance was more important than politics in getting recognized and rewarded
- Everyone said that the sales rep that worked the outstanding 40 hours was the more valuable

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Continuous Learning

- If someone comes up with a new idea, implements it and it fails completely, what reaction from the organization would you expect? Do you have an example?
- What percent of your time dedicated to work is spent on personal development?

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Continuous Learning Summary

- 17 said quality failure was OK
- Percent of time spent on personal development
 - » range from 1 to 20%
 - » average of 6.5%

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Candor

- Let's say that a fellow sales rep had just attended a seminar recommended by (organization sponsor). The sales rep felt it was a complete waste of time and money. As luck would have it, on the return home the sales rep finds himself/herself sitting by ___ on the airplane. Would he/she volunteer that the training was a waste of time? If yes, how would ___ react? If no, why? What would the sales rep do if he/she was asked specifically by ___ how the training went?
- Are people routinely asked to reflect on what they are doing and why?

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Volunteer Bad News

- "The vice president, he liked it; so I've got to tell him that it was good and I'll tell him about the things that I see as being good." ...that's what's going to happen. I can guarantee you.
- (Laughter) No...If ___ thought it was worth your time to go to, it was worth your time. Whether you thought it was or not.
- Some of our people would, but I would say a majority of them would not.
- I would. I'm not sure everybody would...
- Can I speak for myself? At this point I'd say, no, I wouldn't volunteer it. Because I haven't been here long enough. I'd say no, I wouldn't.

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Candor Summary

- 0 said the average sales rep would volunteer the bad news
- 7 said people are routinely asked to reflect on what they are doing

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Community

- If you needed help are there three people that you would feel comfortable calling and asking for their support?
- There is a lot of talk going on about working in teams. In reality, how well are people actually working together? Example.

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Team Work

- I think our team is just doing super.
- If I throw my team out there, I would tell you that you could write a book on us. I think we are tremendous as a team.
- I think that would vary from team to team and unit to unit. I hear the ____ unit is in an uproar. Our team is so spread out...
- I can only speak for our team, I guess, and we probably don't work as well together as we could.

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Community Summary

- Everyone felt comfortable calling 3 people for support
- Team work
 - » 10 said working well
 - » only 1 said not working
 - » remainder somewhere in between
 - » biggest team challenge: distance between members
 - » 6 said something like "we're working well, but I've heard other teams are having problems"

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Involvement

- Who was involved in determining the new: performance specifications, resources, procedures/workflow, consequences, and feedback system?
- About 1/2 of the responses indicated that the sales rep or his/her peers were involved in the process

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Comments

- The general overall view as I interact with other people, I'm seeing more people in the middle, saying "Well, I don't know. Are they serious about this or are they not? And is this helping our organization?"
- I haven't been through a big merger before so I have no defined line, but I think for all that's happened and the direction that we're taking, I feel that the management is pretty much on track. My only wish again is that they would communicate more; they certainly give us a vision if you will of where we're going, what we're going to do, but there are a lot of lines in between that aren't quite filled in that I think would reduce the frustration level and the insecurity in our field sales force if they would share those with us.
- There's probably 25% of our people in the field at this point in time that are still fighting that change.
- But I get a little concerned if you will at times because the frustration level in the field is very high and that's across the board.
- And that's my biggest fear right now is that we are losing contact with the 20% of the people that are doing the 80% of the business. That's my biggest fear right now.

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Comments (continued)

- I mean, there's 35 of us that report to one guy.
- Management does not realize the efforts that are expended, they do not realize the things that are being done in order to complete our job at our level. Reading a report from 3,000 miles away does not give you an idea of the time or energy spent in the completion or performance of your job.
- The biggest things that we've got, you know, hanging over our head right now is they're going to sell the ___ Division. That's probably the most unsettling thing with our work right now.
- We used to have a report that our team designed, and then a couple weeks ago our director designed a different form that we fill out daily instead of we used to do it bi-weekly.
- I've been with the company I think 7 years and a little over that. In the first, let's say 5 or so, it was just a fun place to work.
- You know, there are some things out there that people have questioned and don't understand, and they get "Just trust us; we know what we're doing." And that kind of leaves a lot of uncertainty and stuff like that. There's quite a bit of that out there.

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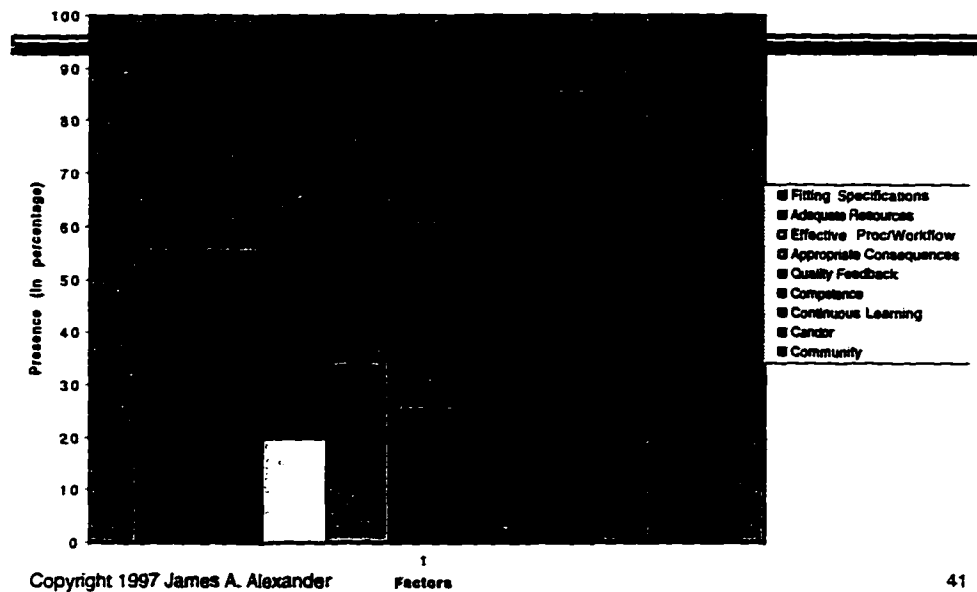
Comments (continued)

- We used to set goals for ourselves, set goals that were important for our team, but on several situations over the past year, we'd get calls from our SBU director saying we need to talk about this and here's the program and this is what your goal is, what you're going to do.
- They're up there trying to preach all this empowerment and team and buy-in and all that other stuff, but when I think it comes down to the actual implementing it, they are actually going backwards.
- I like the management team that are in place within this business unit. I think they know what the dream is, what the aspirations of what we want to accomplish are. They have a plan in place to try to accomplish that, so I'm very, very excited about being a part of this business unit. These are the type or this is the type of responsibility that I have been starving for.
- I hope I didn't paint a bleak picture. Some people handle this better than others. I mean it didn't really phase me because you can't control it and I'm just going to walk with this and do the best that I can. But it's been fun. I don't want to paint a bleak picture. I think it's even going to get more fun as we begin to pick up the pieces.

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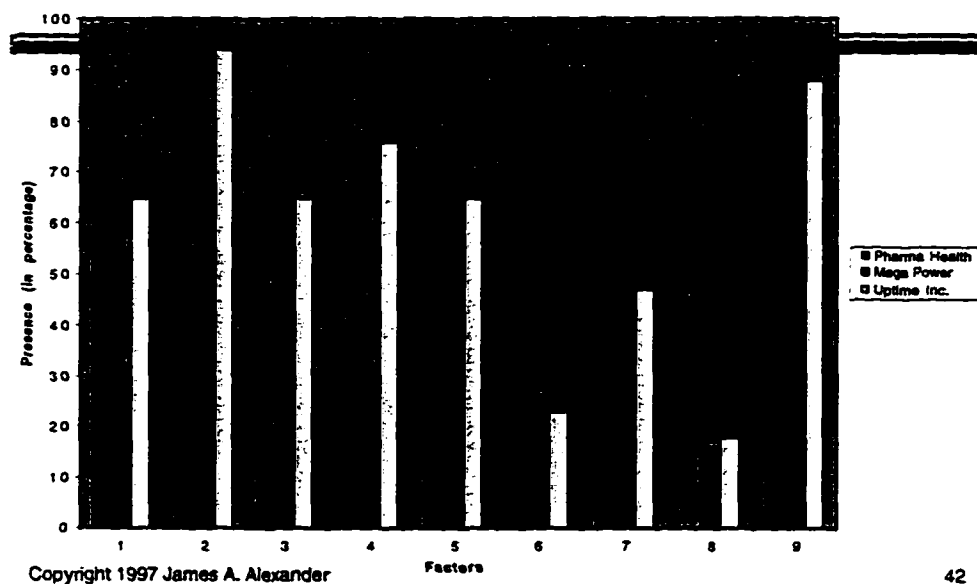
40

**Pharma Health: Presence of Environmental Factors
that Support Rapid Learning and Development**



41

**3 Organization Comparison:
Presence of Environmental Factors that
Support Rapid Learning and Development**



42

Rapid Developer Model Says...

Part	Spec	Res	Wklt	Cons	Fdbk	Comp	Lrng	Cand	Comm	TOTAL	Alignment
✓	+	+	+	+	+	+	+	+	+	7	+
✓	+	+	+	+	+	+	+	+	+	7	+
✓	+	+	+	+	?	+	+	+	+	8	+
✓	+	+	+	+	+	+	+	+	+	8	+
✓	+	+	+	+	?	?	?	+	+	6	+
✓	+	+	+	+	?	+	+	+	+	5	+
✓	+	+	+	+	+	+	+	+	+	5	+
✓	+	+	?	+	+	+	+	+	+	5	+
✓	+	+	+	+	+	+	+	+	+	5	+
✓	+	+	+	+	?	+	?	+	+	4	+
✓	+	?	+	+	+	+	+	+	+	4	+
✓	+	+	+	?	+	+	+	+	+	4	+
+	+	?	+	+	+	+	?	+	+	3	+
+	+	+	+	+	+	+	+	+	+	3	+
+	+	+	+	+	?	+	+	+	+	2	+
+	+	+	+	+	+	?	+	+	+	2	+
+	+	+	+	+	+	+	+	+	+	2	+
+	+	+	?	+	+	+	?	+	+	2	+
TOTAL	11	11	4	7	5	6	7	0	20	1	

Legend:

Hypothesis #1: rapid developers perceive that more environmental factors are present (indicated by ✓'s)

Hypothesis #2: rapid developers perceive that performance specifications are fitting (indicated by "+"s)

Hypothesis #3: rapid developers perception of new performance expectations align with management's (indicated by +s under "Alignment")

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Management Says...

Part	Spec	Res	Wklt	Cons	Fdbk	Comp	Lrng	Cand	Comm	TOTAL	Alignment
RAPID DEVELOPERS											
✓	+	+	+	+	?	+	+	+	+	5	+
✓	+	+	+	?	+	+	+	+	+	4	+
+	+	+	+	+	?	+	+	+	+	2	+
+	+	+	+	+	?	+	+	+	+	2	+
✓	+	+	+	+	+	+	+	+	+	6	+
✓	+	+	+	+	+	+	+	+	+	5	+
✓	+	+	+	+	?	?	?	+	+	6	+
+	+	+	+	+	?	+	+	+	+	2	+
+	+	?	+	+	+	+	?	+	+	2	+
+	+	?	+	+	+	+	?	+	+	3	+
NOT-RAPID DEVELOPERS											
+	+	+	+	+	?	+	?	+	+	4	+
✓	+	?	+	+	+	+	+	+	+	5	+
✓	+	?	+	+	+	+	+	+	+	4	+
✓	+	+	+	?	+	+	+	+	+	6	+
+	+	?	+	+	+	+	+	+	+	1	+
✓	+	+	+	+	+	+	+	+	+	5	+
+	+	+	+	+	+	+	+	+	+	3	+
✓	+	+	+	+	+	+	+	+	+	7	+
✓	+	+	+	+	+	+	+	+	+	7	+
+	+	?	+	+	+	+	+	+	+	2	+
TOTAL	11	11	4	7	5	6	7	0	20	1	

Legend:

✓ = participants predicted by hypothesis #1 to be rapid developers—NOT SUPPORTED

+

+

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Reality Check

- We've been talking about doing new and different things. Besides yourself, what two other sales reps are going gangbusters within your SBU?
 - » Sales rep participants identified 28 names (4 duplicates) as going gangbusters
- What two sales reps have done the least to change?
 - » Sales rep participants identified 7 names (2 duplicates) as having done the least to change
- 1 name appeared on both lists

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Reality Check Summary

- 5 people identified (4 were interviewed) by the participants as going gangbusters were among the 17 rapid developers chosen by management
- 1 person identified by the participants as going gangbuster was selected as a not-rapid developer and interviewed
- 0 people identified (interviewed) by the participants as having done the least to change were among the 17 rapid developers chosen by management

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Pharma Health: Going Gangbusters

Part	Specs	Res	Wkfl	Cons	Fdbk	Comp	Lrng	Card	Comm	TOTAL	Alignment
Sales Reps say "Going Gangbusters"											
√ * Ç	+	+		+		?	+		+	5	
√ *	+				?	+	+		+	4	
√ * Ç	+	+	+			+	+		+	6	
√ * Ç	+	+	+				+		+	5	
√ * Ç	+	+		+	+	+	+		+	7	
Totals	5	4	2	2	1	3	5	0	5	27	
%	100	80	50	50	20	60	100	0	100	54%	

Legend:

√ = Participants predicted by Hypothesis #1 to be Rapid Developers

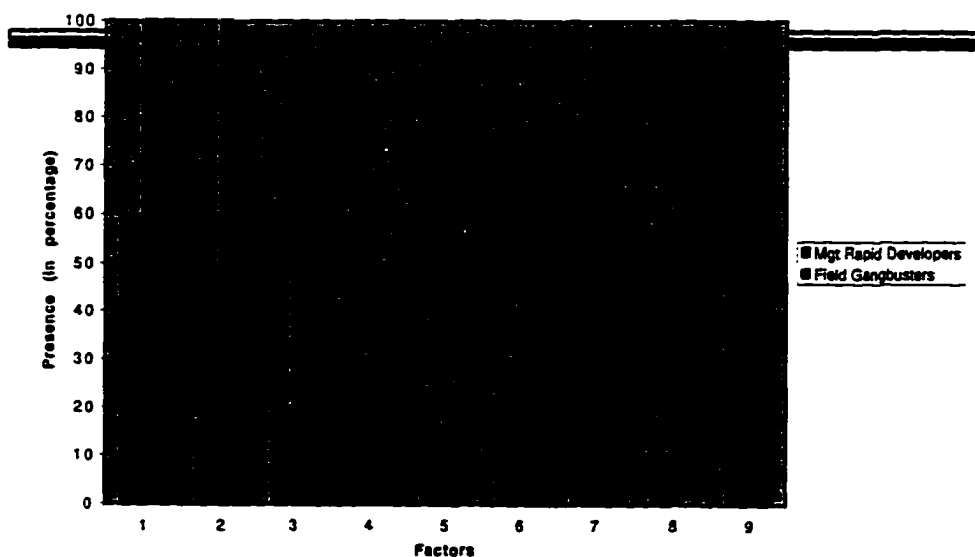
* = Participants predicted by Hypothesis #2 to be Rapid Developers

Ç = Participants selected by Model Rapid Developers

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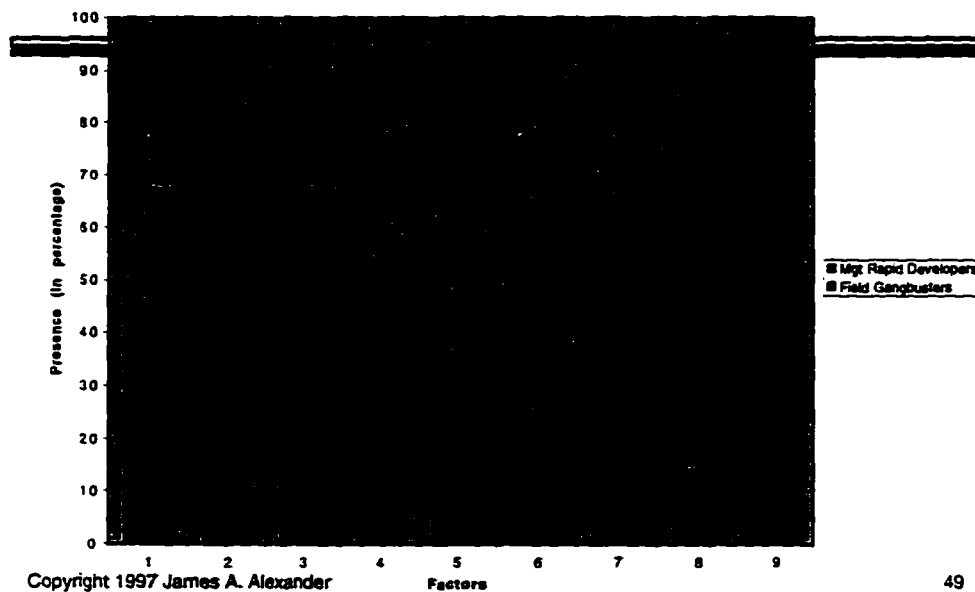
**Pharma Health: Management Rapid Developers vs
Field Gangbusters Selected by Model Rapid Developers**



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**Summary: Management's Rapid Developers
vs Model Rapid Developer's Gangbusters**



49

Researcher Observations

- The learning/performance system has health problems
- "Us vs. Them" is alive and well
- Differences in how management team members interpret/act in the "new organization"
- Significant anxiety causes by uncertainty, lack of trust, and a concern for fairness

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If Issues Aren't Handled Well...

- Negative feelings will smolder
- The opposition camp will solidify and grow stronger
- Misfits will hang on
- Sabotage will come into play
- Champions will become disillusioned
- A crisis will occur within the next six months
- Management frustrations will increase
- The change process will be at risk

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If Issues Are Handled Effectively...

- Opposition will weaken and misfits will soon leave
- The field will soon challenge management to put up or shut up
- Potholes in the path will still be deep but not as wide
- The pace of change will accelerate
- Events will take an unforeseen course
- Anxiety will start to drop
- The fun meter will move to the right

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Recommendations

- Don't take it personally
- Leverage strengths
- Remember, it's a complex system
- Put ownership where it belongs
- Address issues head-on
- Act soon—this is a test
- **FIX THE ENVIRONMENT FIRST**

Mega Power Research Findings

Environmental Impact on Supervisor Learning & Development

February 28, 1997

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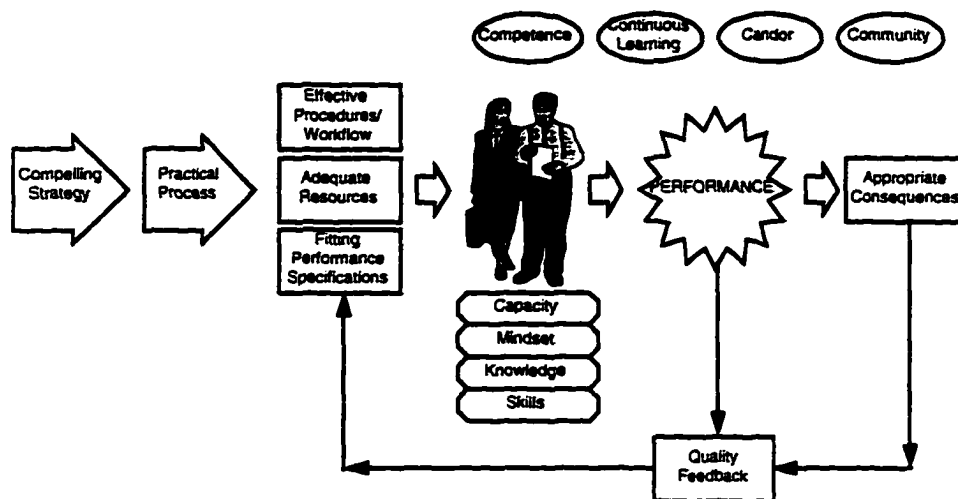
Background

- Importance of the study
 - » the speed of learning and development is a critical business issue
 - » most efforts are ineffective
- Purpose of the study:
 - » create a rapid developer model
 - » test the model in three organizations
 - » provide quality information for participating organizations to take action on

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Organizational Learning



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Hypotheses

- 1. Rapid developers perceive that more environmental factors are present than not-rapid developers.
- 2. Rapid developers perceive that performance specifications are fitting.
- 3. Rapid developers perception of new performance expectations align with management's.

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Procedures

- 1. Gather background/contextual information
- 2. Determine rapid developers
- 3. Determine not-rapid developer sample
- 4. Conduct interviews (19 participants)
- 5. Transcribe interviews
- 6. Sort interview data into categories
- 7. Analyze data for the presence of factors

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Quality Control

- Objectivity
- Reliability
- Internal Validity
- External Validity
- Utility

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Fitting Performance Specifications

- What are Mega Power's expectations of you? What else? Any other expectations?
- It sounds like lots of things have changed these past two years. Which of these expectations are different than in the past? How so? Any other changes in what you are supposed to do?
- Are these new expectations clear? Why do you say that?
- Are they realistic? Why?
- What's the reason for all the changes anyway?

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Expectations

- As a supervisor, I believe that I am committed to meeting and satisfying our objectives for my process, for the organization, and in doing that I need to do it in a manner that would motivate the team of people that I'm responsible for. Making some decisions that would support our goals, measures, and to make sure that I am performing those roles that support the cultural attributes that are expected of a supervisor or anyone in supervision.
- I guess it would be the same for everybody. It would be to do the best job I can in the position I'm in.
- I would just say to be a loyal employee, to be efficient in my work and in my management, and to strive to make our company competitive.
- They haven't said. As a supervisor or as an employee.
- To supervise represented line crews and to supervise non-represented designers in their day-to-day operations.
- my responsibilities are to get people--have underground lines designed and built for all the project and maintenance type work in the service center that I work in.

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What's Different?

- ... to understand the process, to understand our business better and work more from a business owner standpoint...we have more of a team focus, whereas these supervisors are coaches and conflict managers.
- I'm not really sure what the new way is. I don't think I have changed my method of supervising and I don't think I've been given any direction to change my method of supervising at all.
- ...more of a cross-training involved in this instead of doing just one job.
- Well, I think we are doing more work with a lot less people.
- Basically I'm doing the same thing now that I was doing before.
- Under the new organization as a supervisor, nothing is specific and written in stone.
- 50 or 60% of my time is at the computer as opposed to dealing directly with crews, inspecting jobs and doing paperwork by hand.
- We have to be probably more customer oriented and conscious of the customer's needs.

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Specifications Summary

- 13 said clear
- 9 said realistic
- 6 said both clear and realistic

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Alignment

- **Major changes in expectations of supervisors**
 - » **supporting the leadership team (all for one and one for all)**
 - assuming personal accountability
 - innovating
 - taking charge
 - » **creating their own team (from foremen to leaders)**
 - walking the talk
 - nurturing and coaching
 - encouraging empowerment
 - » **developing new capabilities (adopting life-long learning)**
 - leading and teaming
 - using technology
 - understanding broader operations

- **3 supervisor's perception showed alignment**

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Reason for the Changes?

- Because of the competition coming down the road, deregulation, within the electric industry.
- Originally the restructuring was to reduce the number of directors and become more efficient and more competitive. Since that time, they are back up to the number of directors they had before if not more.
- To reposition our company to be prepared for competition in the electric industry and the energy industry. Basically for survival, to better operate our company.
- No one's been able at my level to really figure that out yet.
- ...they wanted to become a process-driven organization was the reason for the reorganization. And make sure the right person got into the right position. Whether that was accomplished or not, I think is a little suspect.
- To become a more efficient, cost-effective company.
- We are preparing our company for the 21st century and a dereg of the electrical business. That's what we've been told. Good or bad, I don't know.

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Reason for the Changes Summary

- 61% stated reasons that aligned with management-issues of deregulation and the need to be more competitive
- 61% volunteered questions or negative remarks about the changes
- 2 supervisors said they didn't know the reasons for the changes

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Adequate Resources

- What resources have been provided to help you meet your new expectations? What else?
- Are resources adequate? Explain.
- Do you have the information you need when you need it? What information do you need?
- How about staffing?
- Do you have enough time?
- Do you have the appropriate tools? What tools do you need?
- How about training?
- Overall, are resources adequate?

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What Resources Provided?

- Pretty much none.
- That's been a considerable amount of training.
- Well, some of the systems that are in place such as the micro-station or CAD design for designers is a very good system.
- Training I think is very good.
- (tools) Yeah, the company's pretty good on that part of it.
- I don't have enough resources...They also have reduced the number of people in the group and reorganized them and frequently we have to postpone jobs and tell we can't get to them because of lack of personnel...And we never have enough money in our budget to get the equipment that we need. Our budget is usually gone in a very short period of time at the first of the year.

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Resources Summary

- 8 said they had the information they needed when they needed it
- 6 said they had the necessary staffing
- 4 said they had enough time
- 10 said they had the tools
- 7 seemed satisfied with the training
- 11 said that overall, resources were adequate

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Effective Procedures/Workflow

- It sounds like you have to supervise differently now than in the past. Is there a specific process or procedure laid out that you are supposed to follow? If yes...how does it work?
- Are the job procedures and workflow logical for the new way of supervising?
- Are there ample opportunities to supervise the new way?
- What interferes with you getting the job done right? Who? When? Where? Why?
- Can your job be done without interference from other tasks?

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What Interferes

- Usually shortage of people, just manpower, and equipment.
- I guess just the volume of work that has to be done.
- I think once that I can prioritize the work to know what I'm capable of doing, there really isn't anything that hinders me from getting it done correctly.
- We do have an awful lot of meetings that I know somebody thinks they are needed, but for what we get out of these meetings we go to, I think they could be cut down a lot.
- Confusion between the supervisors.
- Upper management not looking at my needs as far as resources are concerned.
- I think employee attitude. Union contracts.
- ...I mean the work flow from service planning up to my office where we have to get it out to the contractors, get a job built, then get it spliced and energized and serve the customer, is very poor.
- We have a lot of people in service planning who are just learning the job.
- There's just way too many meetings.

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What Interferes (continued)

- ...everybody not fully understanding what their role in the process is and how we get jobs done and who should be working at jobs, who should be supervising, who should be interested in our jobs, that interferes.
- ...each process kind of grabbing their own turf all the time.
- Some work I can do by hand in 20 minutes to a half hour, this computer might take me an hour or two.
- We don't get our design or materials necessarily on time to start our jobs and complete them on time.
- Uncertainty as to where we're going and a lot of times as to what we're doing.
- You know I'm wondering whether it's necessary or we've really made a monster (information system), OK?
- Unnecessary meetings and training that distract me even further with my scarce time doing my core activities.
- I do not get these designs in a timely manner, so that means that a lot of the jobs are drawn and instead of going into the system and going through a normal routine to be scheduled they are hand delivered to me as being hot, OK?

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Procedures/Workflow Summary

- 5 said there were specific procedures
- 12 said procedures and workflow were logical
- 10 said there were ample opportunities
- 6 said the job can be done without interference
- Note: 3 said they didn't know what the new way of supervising was

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Appropriate Consequences

- What are the positive consequences to you when you achieve job expectations? Is that meaningful to you? Any other positive consequences (recognition or rewards)? Are they meaningful?
- What are the consequences to you when you don't accomplish your expectations? Is that meaningful to you? Any other negative consequences? Are they meaningful?
- Overall, are consequences appropriate?

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Positive Consequences

- There's not a lot of recognition provided. Sometimes there's recognition from the people who work for me who appreciate you know something I've provided or taken care of for them, or helped them achieve their goal, they'll just say thanks or like that. There's been appreciation, recognition provided by customers when we've satisfied their needs. As far as upper management, individual recognition does not happen very often. Not very often at all.
- To be able to have an opportunity to work on things that I like to work on.
- I guess through your evaluation if your director thinks that you're doing a good job, I guess you get rewarded that way.
- External rewards? (laughs)
- For now, job well done. That's it.
- I guess just a personal satisfaction that I have that I've done the job well.
- (rewards or recognition?) No.
- I mean the biggest thing of course is job security and pay.

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Negative Consequences

- Gee, I don't know. I've never been in that position. (laughter) I guess I'm in a unique situation because there is no monetary awards; my wages have been frozen, so I will not get an increase in wages, so I can't say I might get a raise, because I won't get one anyway, whether I do a good job or not. I guess the consequences if I did not meet expectations would be probably a reprimand from my director and I guess if that happened enough times, I could lose my job.
- Well, probably our engineering group has a tendency to write nasty letters and the word kind of gets out that you're not completing your work in a timely manner.
- Minimal.. But I watch others who do not (perform), and are constantly talked about, but nothing happens.
- Let's just say one word: ridicule.
- Other than personally, there's not a lot of ramifications.
- Unfortunately, I don't think there are any right now. I don't think they've got to that point yet.
- ...possibly some disciplinary conversations or actions from my boss.
- Well, if I don't accomplish my expectations, my phone rings off the hook.

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Consequences Summary

- 4 said positive consequences were meaningful
- 4 said negative consequences were meaningful
- 4 said the consequences supported the new way of working
- 6 said overall the consequences were appropriate
- Note: only 7 felt that there were some rewards and recognition

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Quality Feedback

- What feedback do you receive on how well you are meeting expectations? How? From whom? What other feedback?
- Is this feedback relevant? Accurate? Timely? Specific? Easy to understand?
- Overall, is the feedback of adequate quality?

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Feedback Received

- Once in a while the director will congratulate us and make the comment that we've done a good job.
- None, really, I guess. None..if things are going well, I guess that's it, you never hear anything.
- We have our staff meetings, but if there's a problem, we both have an open door whether it be one way or the other that we will speak on a daily basis if we're both here.
- What feedback?
- Having a customer come up and say thank you, is a lot of times a good enough reward.
- We get reports back, numbers, charts.
- Whenever I think there is a question, or I feel a void, I will look for it.
- We have a yearly get together and talk about how we did for the year prior and what we expect to do in the coming year and then we have quarterly reviews.
- Our appraisal system here--it's in place, but nobody uses it.

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Feedback Summary

- 12 said the feedback was relevant
- 12 said the feedback was accurate
- 10 said the feedback was specific
- 9 said the feedback was easy to understand
- 12 said that overall the quality of the feedback was adequate

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Competence

- What is the secret of getting ahead at Mega Power?
- Is performance more important than political connections in getting recognized and rewarded?
- In Mega Power, supervisor A works 70 hours a week and gets very good results. Supervisor B works 40 hours a week and gets outstanding results. Which supervisor will be seen as more valuable? Why?

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The Secret

-
- I think basically being a good employee, doing that little bit extra, being involved. I think it's a great company to get ahead if you do the things that you should do and something a little extra. I don't think it's a good ol' boy company where it's just who you know. I think it's what you do.
 - (laughter) (Long pause) I don't know if there is any secret to getting ahead. I think that in trying to get ahead, I got so far that I got put back. I guess being able to convince upper management that you are capable and that you are doing the things the way they want you to.
 - I think education is one. I think being downtown is a plus.
 - Right now the way the reorg went, I don't think there's too many people around here that want to get ahead in this.
 - Ha! First of all, to be focused, to be knowledgeable, to be indispensable, to be multi-task.
 - I think it is probably the same as anyplace. Number One you have to be you know a hard worker, and your name's got to be out there. You've got to be recognized. You know, I think you have to be willing to take on additional assignments and responsibility.

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29

The Secret (continued)

-
- It used to be hard work and not complaining. Showing up for your job, doing your work without causing your boss any problems. I think it's pretty much the same. Get your job done and your customers are happy.
 - I guess if you have some kind of college education, and you work hard and know what you're doing, and you have a good reputation for doing a good job, that would probably be helpful. I think there are limited opportunities to get ahead, especially when you get to my level.
 - So having a degree, and I think my work ethics is a good key to getting ahead.
 - What's the secret? (laughs) That's a bad question. For me, I've been pretty lucky. I'd say it's knowledge and good hard work which are the things it should be and it's taking a genuine interest in the company and caring about making it go forward. Being a part of all the things they expect you to be a part of. But I also have to add to that, there is a portion of this that is still--you know, for years Mega Power was the good ol' boys' network and relatives.
 - ...the usual answer I imagine. Keep your nose clean, do a good job. That's about it.

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Competence Summary

- **Secret to getting ahead**
 - » 8 mentioned hard work
 - » 5 mentioned education
 - » 3 said they didn't know
 - » only 3 gave responses that indicated performance
- **4 said that performance was more important than politics in getting recognized and rewarded**
- **Everyone said that the supervisor that worked the outstanding 40 hours was the more valuable**

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31

Continuous Learning

- **If someone comes up with a new idea, implements it and it fails completely, what reaction from the organization would you expect? Do you have an example?**
- **What percent of your time dedicated to work is spent on personal development?**

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Continuous Learning Summary

- 11 said quality failure was OK
- Percent of time spent on personal development
 - » range from 1 to 100%
 - » average of 24%

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Candor

- Let's say that a fellow supervisor had just attended a seminar recommended by (organization sponsor). The supervisor felt it was a complete waste of time and money. As luck would have it, on the return home the supervisor finds himself sitting by ___ on the airplane. Would he/she volunteer that the training was a waste of time? If yes, how would ___ react? If no, why? What would the supervisor do if he/she was asked specifically by ___ how the training went?
- Are people routinely asked to reflect on what they are doing and why?

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Volunteer Bad News

- Well, I know ___ pretty good and I worked for him for a period of time, so I would myself, I would tell him, yes. He's open to that kind of stuff. (How about the average supervisor?) Probably not. (Why not?) Well because everybody's probably concerned about reprisals.
- Me, I'd tell him it was a waste of time. (How about the average supervisor?) I doubt it.
- Most of them I know would. (How would ___ react?) He might not agree with you, but I think he'd listen.
- Half of the employees would, half of them wouldn't. I really think that there are a lot of employees, a lot of supervisors, that are extremely comfortable talking to ___ and they have no problem calling him to say "this isn't right." While there is still another half that are still apprehensive, I don't want to say that they are intimidated necessarily, but they are apprehensive. They are not comfortable in sharing anything but good news, if not no news at all.
- I'd say even if it was a waste of time, probably 80% of them--85% would not say that. Fifteen percent would be forthright.

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Candor Summary

- 3 said that the average supervisor would volunteer the bad news
- 4 said that people are routinely asked to reflect on what they are doing

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Community

- If you needed help are there three people that you would feel comfortable calling and asking for their support?
- There is a lot of talk going on about working in teams. In reality, how well are people actually working together? Example.

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Team Work

- I think very well. I think that has improved a lot in the last couple years.
- They're not.
- So through experience we are getting better.
- I think probably the biggest problem--and it's not a big problem, but a problem that comes up occasionally--is where there is a difference between two supervisors. They each have a general form they go to and correct the situation and they don't have that intermediate person to go to that they did before, and I think they are very reluctant to go to a director and complain about another supervisor, so they try to work it out themselves. Or they just ignore the problem (laughter).
- I think we've got a team process going. All the players aren't in the game yet, but it's there and it's just a matter of time.
- so an employee has a tendency to go to whatever supervisor he thinks is going to give him the information or whatever it is that he's after and my guess is that because of the minimal amount of contact between that supervisor and his team, that if you asked the team, I would doubt if half of them knew who their supervisor actually was.

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Team Work (continued)

- It depends on individuals. Like I said, I think we're probably in a situation here maybe it's 60% are working together, and another 40% are not.
- If the non-performing employees, if they want to leave early or whatever, they will go to whatever supervisor is not very effective, is somewhat negative, and says, Oh, yeah, sure. So they seek the level of supervisor to best suit whatever their need is at the time.
- ...They're concerned with their process and their process only; they're not concerned with the overall team or the overall work of business of the service center...they don't realize that if any one of the processes or any one of the areas fail, the entire thing will fail. I just don't think they are team oriented.
- It's going to take a while to develop a team where you know you support everyone as well as you should. But we encourage it daily. But as far as getting represented people to work as a team, I haven't got a clue as to how to do that.
- Each process tells their group something different and then when you get back here it causes a lot of animosity between processes because somebody's doing something different than what you would like to do, and you know, and here you are working side by side with another supervisor.

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Community Summary

- 17 people felt comfortable calling 3 people for support
- Team work
 - » 6 said working well
 - » 6 said not working
 - » remainder somewhere in between

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Involvement

- **Who was involved in determining the new: performance specifications, resources, procedures/workflow, consequences, and feedback system?**
 - » 39% of responses indicated that the supervisor or his/her peers were involved in the process
 - » 21% of responses indicated that the supervisor or his/her peers did (or could have) influenced the decisions
 - » Supervisors felt both the greatest involvement and influence in determining resources

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Comments

- I think that it's good to know that there are some people that want this information that feel that it will be useful to them and I hope it gets back to the right people. I think we've got a lot of people here, and I'm not just saying this, I think we have a lot of people that are great employees that want to do well, that are becoming sort of—I don't know if disgusted is the right word, but sort of dismayed with the way things are going, want something to happen, want to make things better, but are kind of held back due to the non-performers.
- I think that's really important that all the supervisors get on board as a team and work together, because if we don't it's really kind of frightening what could possibly happen. I didn't realize it that much during the reorganization, but I see it more and more all the time. Everything you see and read about in our industry is just taking place so quickly, it's amazing.
- I'd like to see things improve. But I see that as part of the process of figuring it all out. I think it is largely dictated by customers and the fact that we're going to a competitive market that we have to be ready to do that. There are a lot of unanswered questions there, but we're still trying to be prepared even though we don't know exactly what we're preparing for. I think at this service center anyway we try to be very customer oriented, that's what drives us.

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Comments (continued)

- Not really; it's here to stay and you got to live with it. You know, we can look back at the old days, but the old days are gone.
- Just what I think what everybody feels here is it seems like we've been going through a constant change for the last couple years and it's really put you under a lot of turmoil trying to work with your employees. It seems like just when you get comfortable with something, another change comes about in the way you've got to do your work.
- I think you probably have a pretty good idea of how I feel about it. I appreciate being able to give it to you. Like I say, this is a good example itself of you know where somebody actually wants to know what you think about something and gives it some credit. That's something we never saw at our level before.
- Well just that if I sound negative, I don't mean to, OK, because I've been with this company a very long time. And it's dear to my heart, so to speak. I used to enjoy every minute that I put in here. I say "used to" because anymore, I don't.

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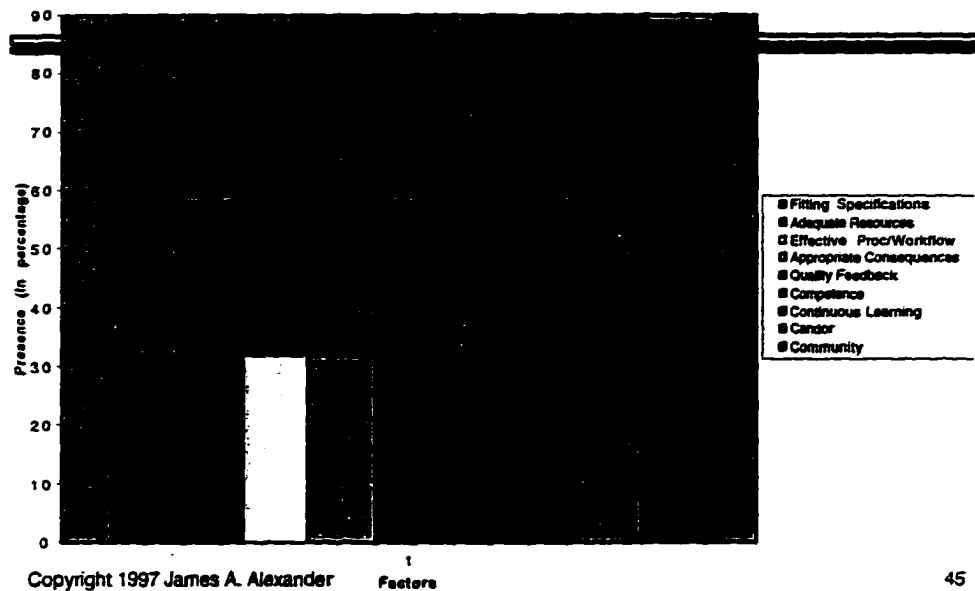
Comments (continued)

- The other thing I'm not sure they recognize is that when you have somebody who you have willfully told for 30 years, "this is all you got to do to earn your money" and then you turn around and tell them "well, now we actually want you to do twice that much in the same amount of time and by the way a lot of your money is going to be at risk now, we want to see how well you do" it just don't happen overnight.
- Like I say, I like it; I'm all for performance because in the past it hasn't been part of the deal, you know, I like it. It's challenging and they've thrown a lot at us, but I think it's the way to go. But we've got to course-correct along the way, cut back on the meetings, and stuff like that.
- In summary I just want you to know that basically and I honestly feel that the company is headed in the right direction. But we need to admit—you know when you create and incorporate a change, mistakes are going to be made. We need to get in the habit of admitting we made a mistake, let's find something different or go back to the old way which is better than the mistake until we find something better. And move on from there. That's the only way we're going to progress.

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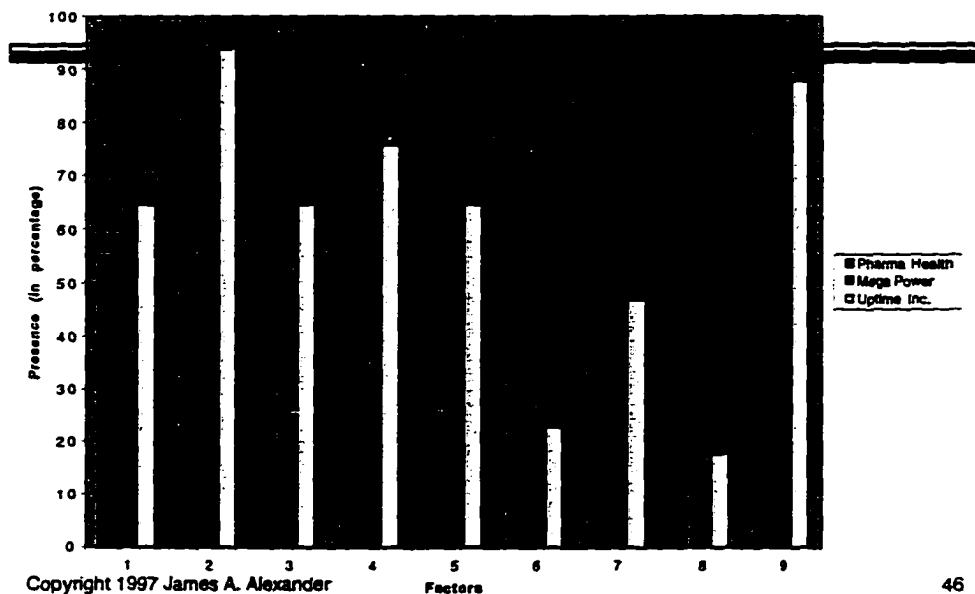
44

Presence of Environmental Factors that Support Rapid Learning and Development



45

**3 Organization Comparison:
Presence of Environmental Factors that Support Rapid Learning and Development**



46

Rapid Developer Model Says...

Part	Specs	Res	Wkft	Core	Fdpt	Comp	Lng	Cand	Comm	TOTAL	Alignment
✓	+	+	+	+	+	+	?	+	+	8	
✓	+	+	+	+	+	+	+	+	+	7	
✓	+	+	+	?	+	+	+	+	+	6	+
✓	+	+	+	+	+	+	+	+	+	5	+
✓	+	+	+	+	?	+	+	+	+	5	+
✓	+	+	+	+	?	+	+	+	+	5	
+	+	+	+	+	+	+	+	+	+	4	
+	+	+	+	+	+	+	+	+	+	4	
+	+	+	+	?	+	+	+	+	+	4	
+	+	+	+	+	?	+	+	+	+	4	
+	+	+	+	+	+	?	+	+	+	4	
+	+	+	+	+	+	+	?	+	+	4	
+	+	+	+	+	+	+	+	+	+	4	
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+	+	+	+	+	+	+	+	+	+	3	
+	+	+	+	+	+	+	+	+	+	2	
+	+	+	+	+	+	+	+	+	+	2	
+	+	+	+	+	+	?	+	+	+	1	
+	+	+	+	+	+	+	+	+	+	0	
TOTAL	6	11	8	8	11	5	11	3	17		1

Legend:

Hypothesis #1: rapid developers perceive that more environmental factors are present (indicated by ✓'s)

Hypothesis #2: rapid developers perceive that performance specifications are fitting (indicated by "+"s)

Hypothesis #3: rapid developers perception of new performance expectations align with management's (indicated by +s under "Alignment")

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Management Says...

Part	Specs	Res	Wkft	Core	Fdpt	Comp	Lng	Cand	Comm	TOTAL	Alignment
RAPID DEVELOPERS											
✓	+	+	+	?	+	+	+	+	+	4	
✓	+	+	?	+	+	+	+	+	+	8	+
✓	+	+	+	+	+	+	+	+	+	2	
✓	+	+	+	+	+	+	+	+	+	0	
✓	+	+	+	+	+	+	+	+	+	5	+
+	+	+	+	+	+	+	+	+	+	3	
+	+	+	+	+	+	+	+	+	+	4	
+	+	+	+	?	+	+	+	+	+	4	
✓	+	+	?	+	+	+	+	+	+	5	+
+	+	+	+	+	+	+	+	+	+	3	
NOT-RAPID DEVELOPERS											
+	+	+	+	+	+	+	+	+	+	4	
+	+	+	+	+	+	+	+	+	+	4	
✓	+	+	+	+	+	?	+	+	+	8	
+	+	+	+	+	+	+	+	+	+	2	
+	+	+	+	+	+	+	+	+	+	4	
✓	+	+	+	+	+	+	+	+	+	8	
✓	+	+	+	+	+	?	+	+	+	4	
✓	+	+	+	?	+	+	+	+	+	5	
+	+	+	+	+	?	+	+	+	+	1	
TOTAL	6	11	8	8	11	5	11	3	17		1

Legend:

✓ = participants predicted by hypothesis #1 to be rapid developers—NOT SUPPORTED

+

+

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Uptime Inc. Research Findings

Environmental Impact on Field Service Engineer Learning & Development

March 2, 1997

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1

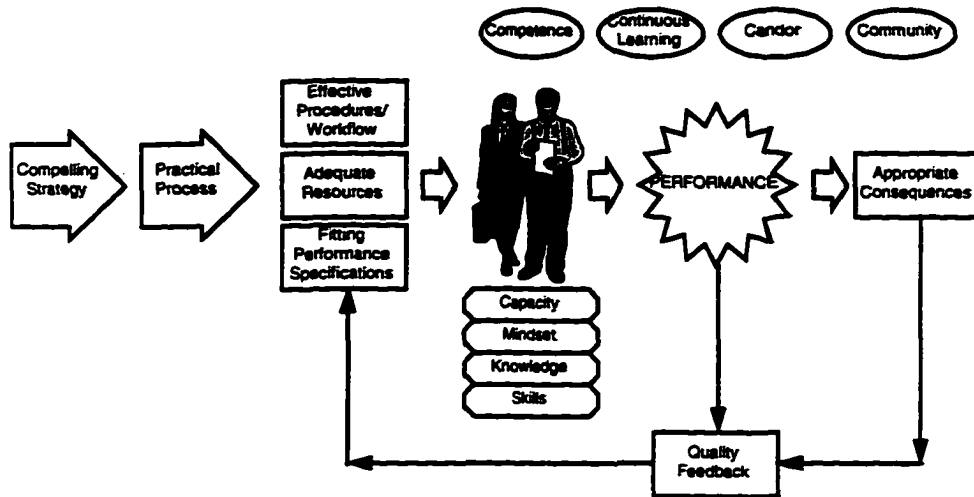
Background

- Importance of the study
 - » the speed of learning and development is a critical business issue
 - » most efforts are ineffective
- Purpose of the study:
 - » create a rapid developer model
 - » test the model in three organizations
 - » provide quality information for participating organizations to take action on

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Organizational Learning



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Hypotheses

- 1. Rapid developers perceive that more environmental factors are present than not-rapid developers.
- 2. Rapid developers perceive that performance specifications are fitting.
- 3. Rapid developers perception of new performance expectations align with management's.

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Procedures

- 1. Gather background/contextual information
- 2. Determine rapid developers
- 3. Determine not-rapid developer sample
- 4. Conduct interviews (17 participants)
- 5. Transcribe interviews
- 6. Sort interview data into categories
- 7. Analyze data for the presence of factors

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Quality Control

- Objectivity
- Reliability
- Internal Validity
- External Validity
- Utility

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Fitting Performance Specifications

- What are Uptime Inc.'s expectations of you? What else? Any other expectations?
- It sounds like lots of things have changed these past few months. Which of these expectations are different than in the past? How so? Any other changes in what you are supposed to do?
- Are these new expectations clear? Why do you say that?
- Are they realistic? Why?
- What's the reason for all the changes anyway?

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Expectations

- To satisfy the customer and perform error free performance... generate you know revenue, and leadership.
- They like for you to be on time, they like to have your paperwork done accurately and also on time. They expect you to be on call almost 24 hours, seven days a week. They expect you to treat your customers and coworkers well, politely. I guess they would expect you to do your best. Also try to use your time wisely. I think they look also for you to continue learning throughout your career both inside work and external to work.
- ...before it was keep the customer happy, satisfied, meet what the customer wants. But lately everything I hear is numbers, you got to meet this, and if you don't meet this, you're not going to get this, you know, such and such.
- ...we're responsible for performing start ups of new equipment, doing the preventive maintenance on existing equipment that has service contracts, and trouble shooting equipment that fails...As long as the customer wants us in there, we go in and take care of it. We're responsible for basically scheduling any preventive maintenance... and pretty much maintaining all the equipment that's given to us.
- To provide error free performance to each and all customers the first time.

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What's Different?

- I don't know if they are that much different except that we cover a larger territory.
- Well we reorganized and merged two offices and the only thing that affected me was my area got bigger, my area of responsibility, customers, geographical wise, but other than that everything remained pretty much the same. Lost a district manager and got a regional manager, so there was one manager between me and corporate and it got eliminated, but other than that everything's basically the same for me.
- The only thing that might be a little bit different is that this manager is supposedly asked to do a little bit more than the old manager as far as making decisions wise because he's a regional manager rather than a manager for your district. But what has changed is now to do anything we have to go farther.
- Well, yes a little bit. You know essentially because the management has got more reports and his time is limited, and so therefore we must take proactive in doing as much with little management help.

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What's Different? (continued)

- Well, I used to be real close to the office. I'm no longer real close to the office.
- ...it's really been kind of a gray area; I mean nobody really came out and told us exactly what our responsibilities are going to be with this reorganization. Are we doing to have to do more? Or less?
- Nothing that I've been aware of, or nothing that I see as being of a major impact. By major impact, I mean as affecting me differently.
- ...a few responsibilities have gone away as far as having to support smaller products. That support is supposedly being taken up by corporate tech support and I'm supposed to primarily support medium and large systems, and so far that's about all that's really changed.
- Not really. It's been pretty much transparent to me.

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Specifications Summary

- 13 said clear
- 10 said realistic
- 10 said both clear and realistic

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Alignment

- Major changes in expectations of engineers
 - » work more independently with less supervision
 - » assume more responsibility (such as scheduling)
 - » own all aspects of working with key customers
 - » improve capabilities
 - project management
 - customer relations
 - technology usage
 - problem solving
- 0 field service engineer's perception aligned with management's perception

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Reason for the Changes?

-
- The changes in the regional manager's position is to better provide the engineer with avenues--what they did is they took two positions, they took a district manager and expanded his position, broke it up and now it's only it with two people. So the intent is I guess to give the regional manager a better ability to perform certain tasks within his job. One of which is engineer growth.
 - That's I believe to make things flow more efficiently and cut down on some overhead as far as unnecessary office space.
 - We weren't really told exactly why it was done. I think it's for cost effectiveness that they did that. You know, less offices, less personnel, less waste.
 - and I understand they wanted to communicate better between the field and the home office, like a liaison between them.
 - I really don't know. They never really came out and told us why they were doing it; just that they were doing it. I'm sure it's probably some type of cost savings,
 - What they've told us is basically we need to become more efficient and put more control--I don't want to say control--but more I guess control out in corporate headquarters and get rid of a lot of the paper shuffling. Regional offices that aren't necessarily needed anymore, get rid of them, and get more centralized.

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Reason Summary

-
- 3 field service engineers made statements that align with management's
 - 9 stated cost savings/downsizing/efficiency as #1 reason
 - 5 said they didn't know

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Adequate Resources

- What resources have been provided to help you meet your new expectations? What else?
- Are resources adequate? Explain.
- Do you have the information you need when you need it? What information do you need?
- How about staffing?
- Do you have enough time?
- Do you have the appropriate tools? What tools do you need?
- How about training?
- Overall, are resources adequate?

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What Resources Provided?

- None really.
- I guess in a way freeing up ___ (RM) in creating his new position it's helped with the availability of each one of those individuals, (RM and account manager)it's given more access.
- Well, no new ones. About two years ago they gave us laptop computers, to help us more efficiently manage and track our stuff, but other than that, that was about it.
- The laptops and cellular modems, vehicles to provide more real time information back to corporate.

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Resources Summary

- 7 said they had the information they needed when they needed it
- 10 said they had the necessary staffing
- 7 said they had enough time
- 14 said they had the tools
- 9 seemed satisfied with the training
- 16 said that overall resources were adequate

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Effective Procedures / Workflow

- It sounds like you have to operate differently now than in the past. Is there a specific process or procedure laid out that you are supposed to follow? If yes...how does it work?
- Are the job procedures and workflow logical for the new way of working?
- What interferes with you getting the job done right? Who? When? Where? Why?
- Can your job be done without interference from other tasks?

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What Interferes?

- Some training. Like in the ____ area. Some of the boxes, the F1's, F2's and 3's, I have had no training on them at all. So I'm totally lost when I have to go out to a site knowing nothing about the equipment.
- It does pull us away, especially when they say that we're getting rid of paperwork, and it turns out I'm filling out more, but I do know where they want to go, OK? And I know there is movement in that direction. The problem is other people are generating other paperwork. And like I said I get home, and my mailbox is full of stuff from (headquarters).
- The amount of hours that we work. You know a lot of times you're just so tired that you might not catch something.
- Nothing really. We have all the resources; it's just a matter of doing it.
- Well one of them would be a cell phone. It would make it easier—I know a lot of times in the city and stuff it is hard to find a pay phone that's easily accessible when you get paged. And we're supposed to respond within 15 minutes, so.
- Sometimes you work so much that the administrative duties fall behind three or four days' worth. If you're working 12 or 14 hour days for three days in a row, you're not going to come home and do two hours of administrative work.

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What Interferes? (continued)

- ...we have four different ways of communicating, some people prefer different ways and tend to ignore the other systems. You either have to check all four every day on a constant basis or it doesn't work. See what I'm saying?
- Support from (headquarters) I find to be lacking. When I call (headquarters) for information, support, help, whatever, I constantly get voice mail out there. You can never talk to a person. You are constantly being put on hold, or talking to a machine, and there's nobody to direct you needs out there. You can talk to secretaries, but then they can't find anybody...nobody knows where anybody else is at. I find it hard to get a hold of people in (headquarters) and get the information in a timely manner.
- It seems they do provide a lot of reporting in certain areas, almost to the point that it's burdensome. We're being like clogged with it now. We have a lot of reports handed to us on a weekly basis now. I find that it's relevant to my job and my expectations, but it's not relevant to taking care of our customers as a whole.
- I would say the biggest obstacle would be documentation. And that being that they make a lot of changes in production and it may be just a matter of moving one wire from one place to another place, but we don't know that, and it takes time to figure out that they did something new instead of them telling us ahead of time.

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Procedures/Workflow Summary

- All said there were specific procedures
- 15 said procedures and workflow were logical
- 12 said the job can be done without interference
- Most stated interference
 - » 8 said parts
 - » 4 said workload
 - » 3 said paperwork

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Appropriate Consequences

- What are the positive consequences to you when you achieve job expectations? Is that meaningful to you? Any other positive consequences (recognition or rewards)? Are they meaningful?
- What are the consequences to you when you don't accomplish your expectations? Is that meaningful to you? Any other negative consequences? Are they meaningful?
- Overall, are consequences appropriate?

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Positive Consequences

- The positive consequences? Oh, personal satisfaction. I know that I've earned my money that day. Customer is very happy about his experience with Uptime Inc. You know, that just all boils down really to job security and having a job next week.
- They're nice (recognition)...It makes up for some of them times when you put in the extra effort and they say, "Hey, go ahead and do this."
- (positive consequences) I really don't see any.
- It's been revised to where it's all based on an individual's performance, not grouped. Which is a better plan.
- I think it's a benefit that has constantly been tampered with. I'm at the point right now, at least from my perspective, it doesn't give me any initiative to try to sell any more contracts...I'm unhappy with what they've done to it over the past few years.
- ...Engineer of the quarter, and of the year, of the region, it's something to work to.
- Their expectations are a little far-fetched... they looked at all these figures in the computer and determine if you should get all of your commission or not. And it's really a bogus type of way of doing it just because the numbers that we're putting in- you know, you're going to enter in what you need to enter in to get your commission...we out in the field feel, the numbers are pretty much meaningless.

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Positive Consequences (continued)

- (associate of the year award) Oh yes, you know, it's a good--something to put in the record...You know when you get an award like that it's best to kind of hang around.
- Well, it gives me personal gratification to do a good job, but as far as the company goes, I don't think they really care. (laughs)...And then when they come up with your little ideas to get us motivated, they're usually not very good motivators.
- They just give us like 3% raises every year or so, standard across the board for everybody, and it's up to the regional manager to divide that up evenly. Or unevenly as they want. And it seems like every year, they just say, "well, we'll just give everybody the same." But there's no way to move ahead, at least monetarily. You can't walk in there and say, well I think I deserve a raise, because no matter how good of a job you're doing, they turn around and they tell you, there's the door, you can leave. I think that's a bad way to do business
- No, not really. I mean when we won district of the year, we all got a pen, you know. It's not like when like Chrysler beats their profit sharing, they get a check of \$7,000 to each of their employees. It's nothing like that. It's usually minimal rewards... Our Christmas bonus was they took us out to dinner. So I'd say minimal.

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Negative Consequences

- Well, I guess the consequences would be verbal reprimand, that's rare, you're very behind in your job, customers really suffer pretty bad.
- From what I've seen in this company, it takes a lot to get dismissed or terminated.
- Um, yeah, from what I've heard, and you know if do something that's not real critical, you are kind of warned, just mentioned to you, you know, take a little more time, so I think that's good.
- Job wise if you don't meet your goals--like they'll give us a list of PM's that are due this month. If you don't get them done, it just gives you more work next month. There's really no consequence yet anyway that if you didn't get them done, you know you get a point against you or something. Because they understand I guess that if you don't meet your goals, it's not because you didn't do the job, it's because you were too busy to get to them.
- Not apparently. Other people there haven't made their expectations and there hasn't been any disciplinary action or anything like that poured on them, so I'd have to say it just affects monetarily the whole group.

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Consequences Summary

- 10 said that positive consequences were meaningful
- 11 said that negative consequences were meaningful
- 13 said that overall the consequences were appropriate

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Quality Feedback

- What feedback do you receive on how well you are meeting expectations? How? From whom? What other feedback?
- Is this feedback relevant? Accurate? Timely? Specific? Easy to understand?
- Overall, is the feedback of adequate quality?

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Feedback Received

- We usually hear it when we're doing bad, not when we're doing good.
- We also receive reports back on a district and personal level, stating whether we've completed our expectations in certain areas, not in all areas. But within the last wave of field automation, it's really narrowed it down, and they have very good reporting.
- Maybe a voice mail every once in a while, somebody from upper management will come out for a yearly meeting, but that's about it. Not very much.
- I never get a pat on the back for doing a good job. And I never get scolded for a screw-up, like I said, that doesn't happen often. That's the good thing. Well, maybe if I did screw up more, I'd find out about it. (laughs) But I don't.
- The field automation project right now and the feedback that we're getting from this information tends to be tainted and inaccurate on a regular basis. Once when the company knows that there was a problem, they don't take the opportunity to correct it, and also as a result correct all the reports that they're sending out. Basically once the mistake is made, that's too bad, we're not going to fix it. And to me that kind of circumvents the whole process. If you're not going to provide correct information, then why provide it at all.

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Feedback Summary

- 11 said the feedback was relevant
- 7 said the feedback was accurate
- 9 said the feedback was timely
- 11 said the feedback was specific
- 11 said the feedback was easy to understand
- 11 said that overall the quality of the feedback was adequate

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31

Competence

- What is the secret of getting ahead at Uptime Inc.?
- Is performance more important than political connections in getting recognized and rewarded?
- In Uptime Inc., field service engineer A works 70 hours a week and gets very good results. field service engineer B works 40 hours a week and gets outstanding results. Which field service engineer will be seen as more valuable? Why?

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32

The Secret

- God, that's--yeah, hard work, that's a good one. (laughs) Hard work and wanting to move to (headquarters). Obviously I don't want to move to (headquarters), so I don't plan on going anywhere (laughs).
- ...be very motivated, to be very involved, enthralled with the job, provide a very professional service to the customers...provide a very professional business appearance.
- I have no idea. I haven't found it yet.
- (laughs quietly) Oh, work hard. Try to stay abreast of technology and be reasonable in your expectations, and have a little patience.
- ...for the most part, you have to know somebody out there. They do not provide a listing of open jobs...they basically snatch people out of the field that they want, and the jobs were never posted to the rest of the field. That's the way it's done in the Fortune 500 companies that I know of.

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33

The Secret (continued)

- I think Uptime Inc. is a very rewarding from within company..If you love your job, if you believe in company policies, if you believe--it's going to be obvious who that is. I think Uptime Inc. would much rather promote from within than bring in an outsider. I don't know what the correct terminology would be, but it's almost kind of like a family.
- I don't want to elaborate on that. It's very careful what one says, and always keep an eye behind you.
- (recent downsizing) I feel there really isn't a whole lot of opportunity for advancement in Uptime Inc.
- If you want to go up higher, it's there. It's not going to come like overnight, it's going to take time, but there's going to be openings. You can, but you have to realize you're going to have to move.

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Competence Summary

- **Secret to getting ahead**
 - » 7 said had to move to headquarters
 - » 6 expressed serious doubts if could move ahead
 - » only 4 made statements about performance
- **4 said that performance was more important than politics in getting recognized & rewarded**
- **Which engineer was more valuable?**
 - » 10 said the one that worked 40 hours with outstanding results
 - » 3 said the one that worked 70 hours with very good results

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35

Continuous Learning

- **If someone comes up with a new idea, implements it and it fails completely, what reaction from the organization would you expect? Do you have an example?**
- **What percent of your time dedicated to work is spent on personal development?**

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Continuous Learning Summary

- 8 gave responses that indicated that quality failure was OK
- Percent of time spent on personal development
 - » range from 0 to 100%
 - » average of 23%

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Candor

- Let's say that a fellow field service engineer had just attended a seminar recommended by (organization sponsor). The field service engineer felt it was a complete waste of time and money. As luck would have it, on the return home the field service engineer finds himself sitting by ____ on the airplane. Would he/she volunteer that the training was a waste of time? if yes, how would ____ react? If no, why? What would the field service engineer do if he/she was asked specifically by ____ how the training went?
- Are people routinely asked to reflect on what they are doing and why?

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Volunteer Bad News

- Probably not. That's because of who ____ is. Maybe he would speak up and go through his regional manager, but I don't think most people would feel comfortable speaking out directly to ____ about something he recommended.
- I like to believe the open door policy. That's what I've been told since day one, so you still got to believe in it
- (laughs hard) Would he volunteer? You mean engineer A, not me, but if engineer A- would he tell ____ it was a waste of time? I don't think so. Would I? Yeah.
- (long pause) I think most of the engineers would.
- Not if he was smart he wouldn't. 'Cause ____ don't like to hear things like that.
- Probably so. (____ react?) Probably very diplomatically, would ask, show concern, want to know why, why was it a waste of time and what could he do to improve.
- Definitely not. (Why not?) I don't feel that information--I think that--how do I put this? I think most people, I don't know, in our region, that most engineers really--I don't know how to say that--but they wouldn't volunteer information like that to ____ or anybody in upper management from corporate without feeling that these would get back to them. You know, there would be consequences.

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Candor Summary

- 3 said that the average field service engineer would volunteer the bad news
- 7 said people are routinely asked to reflect on what they are doing

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Community

- If you needed help, are there three people that you would feel comfortable calling and asking for their support?
- There is a lot of talk going on about working in teams. In reality, how well are people actually working together? Example.

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Community Summary

- 15 field service engineers felt comfortable calling 3 people for support
- Team work
 - » 12 said working well
 - » 2 not really sure
 - » 3 said so-so

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Involvement

- In response to the questions, “who was involved in: determining these new expectations, or deciding what resources were needed, etc.”
 - » Only two mentions (out of 85 opportunities) that there was input from engineers
 - » Lot's of “don't knows”

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43

Comments

- Well I'm just curious as to the fact that you are using the information that I'm giving you, I would like a little feedback on it.
- ...you know, I enjoy my job. I like doing what I do. I have a certain amount of frustrations because I can't get them done as speedily as I would like to. However, that may just be me. My personality. I see things that I think the company in their policy and the way they--you know, we're supposed to be a service organization--I don't always see that Uptime Inc. as a service organization. Many times it seems like more a company that tries to extract money from the customers as much as possible. This is only my personal opinion. Other than that, I have a job, I'm happy. Make sure you write that down.
- ...in regards to communications, you might ask more details--what does the engineer feel that can be done to improve communications not only at the regional level but also corporate to engineer to customer.
- I actually think they need to keep in touch with how the engineer feels in the field, try to keep motivation and morale high. That's important. I think they're letting that slip a little bit.

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44

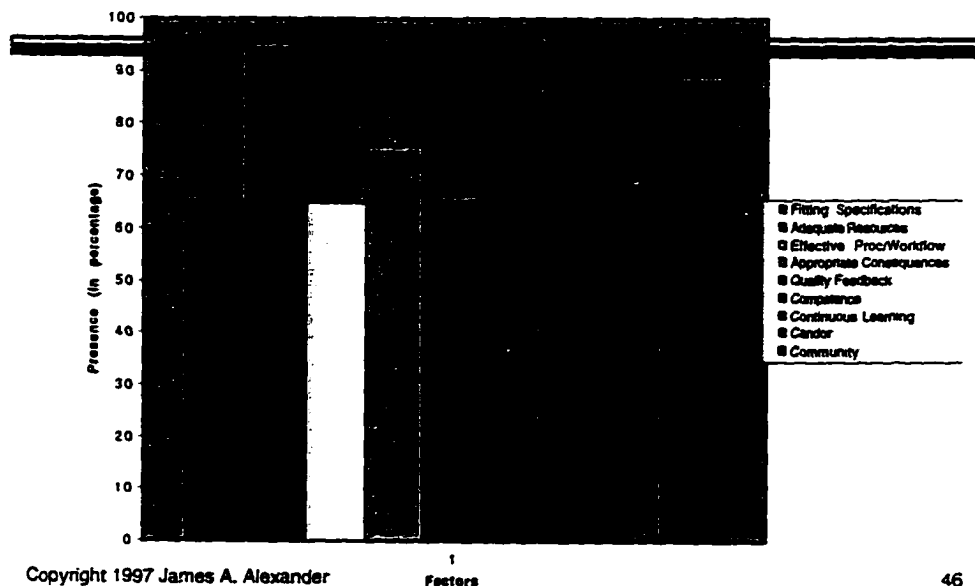
Comments (continued)

- I think that a lot of micro management on our level is being done in the reporting, and something is being lost. I think the customer support is being lost, on customer satisfaction is kind of being put to the side with respect to the engineer.
- We're just swamped. I'm working on right now currently doing my December preventive maintenances. I haven't even started looking at January's and here we're at the end of the month. I will not complete December's before I get to February. And I'm going back to (headquarters) on training, so again it's all resources and time. Where can you fit these in? I don't know. And that's what's eventually going to kill somebody. Because they're going to be so fatigued that they're going to make a critical mistake.
- probably a couple things that I would probably add is that on the whole Uptime Inc. is a good company. On the whole the job that I have is a good job. And I'm grateful that I have this job. And you know, just like with anything else, no company is perfect and there's just a few areas that just need attention and it's a good company.

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45

**Uptime Inc: Presence of Environmental Factors
that Support Rapid Learning and Development**

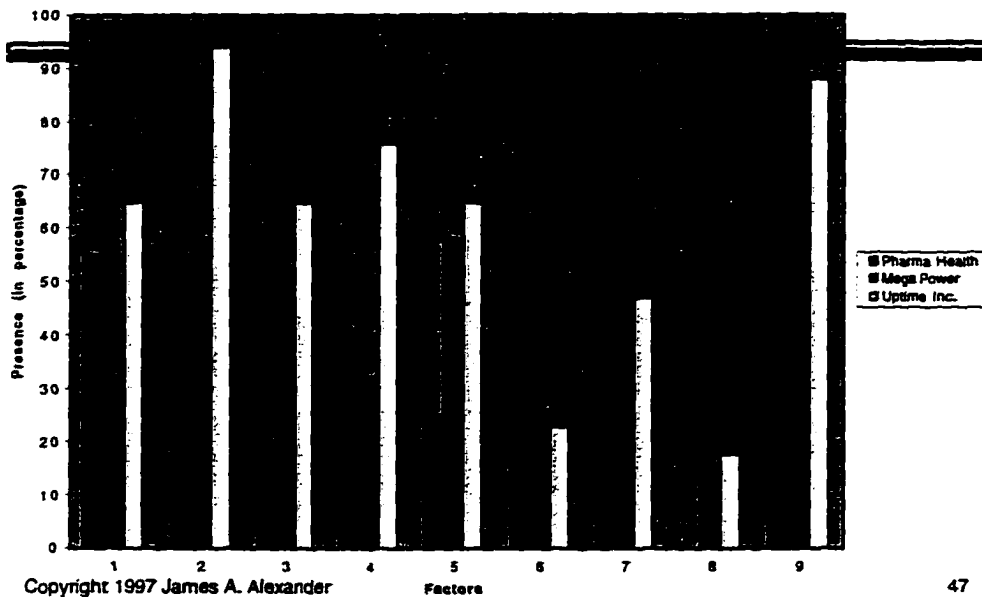


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Factors

46

**3 Organization Comparison:
Presence of Environmental Factors that
Support Rapid Learning and Development**



47

Rapid Developer Model Says...

Part	Specs	Res	Wkfl	Cons	Fdbk	Comp	Lrng	Cand	Comm	TOTAL	Alignment
✓	+	+	+	+	+	+	?	+	+	8	
✓	+	+	+	+	+	?	?	+	+	7	
✓	+	+	+	+	+	?	+	+	+	7	
✓	+	+	+	+	+	+	?	+	+	7	
✓	+	+	?	+	+	?	+	+	+	7	
✓	+	+	+	+	+	+	+	+	+	7	
✓	+	+	?	+	+	+	?	+	+	6	
✓	+	+	+	+	+	?	+	+	+	6	
+	+	+	+	+	+	+	+	+	+	5	
+	+	+	+	+	+	+	+	+	+	5	
+	+	+	+	+	?	+	+	+	+	5	
+	+	+	?	+	+	+	+	+	+	5	
+	+	+	+	+	+	?	+	+	+	4	
+	+	+	+	+	+	?	?	+	+	4	
?	+	+	+	+	+	+	+	+	+	3	
+	+	+	+	+	+	+	+	+	+	3	
+	+	+	+	+	+	+	+	+	+	2	
TOTAL	10	16	11	13	11	4	8	3	15		

Legend:

Hypothesis #1: rapid developers perceive that more environmental factors are present (indicated by ✓'s)

Hypothesis #2: rapid developers perceive that performance specifications are fitting (indicated by "+"s)

Hypothesis #3: rapid developers perception of new performance expectations align with management's (indicated by +s under "Alignment")

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48

Management Says...

Part	Specs	Res	Wkft	Cons	Fabk	Comp	Lmg	Card	Comm	TOTAL	Alignment
RAPID DEVELOPERS											
*	+	+	+			?			+	4	
?	+	+	+						+	3	
	+	+	+			?	+		+	5	
√	+	+	+	+	+	?			+	7	
√	+	+	+	+	+	?	+	+		8	
√	+		+	+	+	+			+	7	
√		+	+	+	+	?	+	+		6	
√	+	+	?	+	+	?	+	+	+	7	
NOT-RAPID DEVELOPERS											
√	+	+	+	+		?	+	+		7	
√	+	+	+	+	+	?	+		+	7	
*	+	+	+				+		+	5	
	+	+	+		+				+	5	
	+	+	+	+	+	?	?			4	
√	+	+	?	+	+		+	?	+	6	
		+		+					+	3	
	+	?	+	+	+				+	5	
*	+	+								2	
TOTAL	10	16	11	13	11	4	8	3	15		

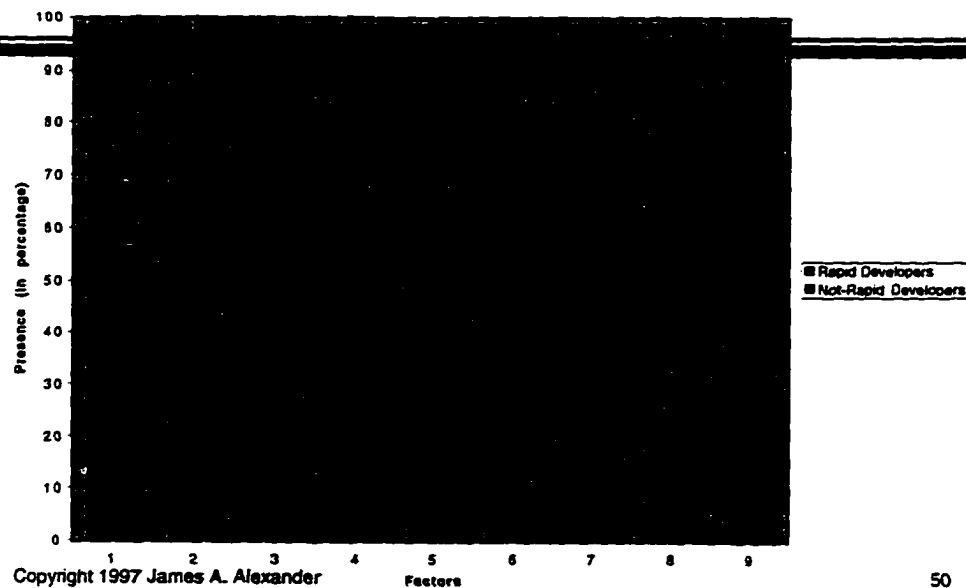
Legend:

- √ = participants predicted by hypothesis #1 to be rapid developers
- * = participants predicted by hypothesis #2 to be rapid developers
- + = participants predicted by hypothesis #3 to be rapid developers (under "Alignment")

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49

**Uptime Inc: Environmental Factors Present
for Rapid Developers vs Not-Rapid Developers**



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Factors

50

Reality Check

- We've been talking about doing new and different things. Besides yourself, what other two engineers are going gangbusters within your region?
 - » participants identified 26 names as going gangbusters
- What two engineers have done the least to change?
 - » 6 engineers were asked, 4 wouldn't answer
 - » the 2 engineers that responded gave a total of 3 names

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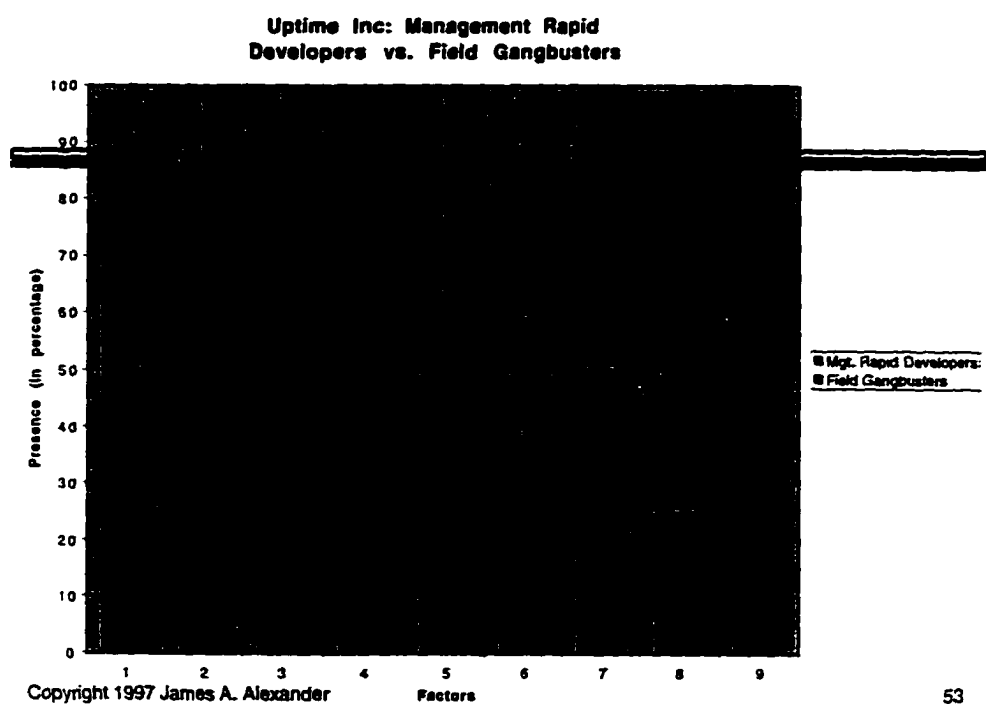
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Reality Check Summary

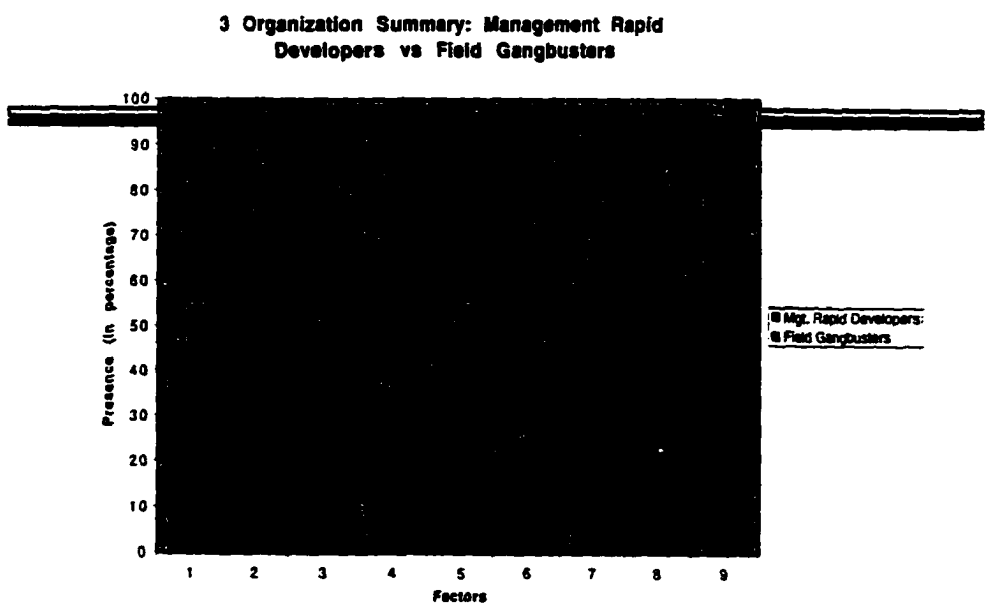
- 11 of the 26 people identified by the participants as going gangbusters were among the 33 rapid developers chosen by management
- 4 of the individuals identified by the participants as going gangbusters were interviewed

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52



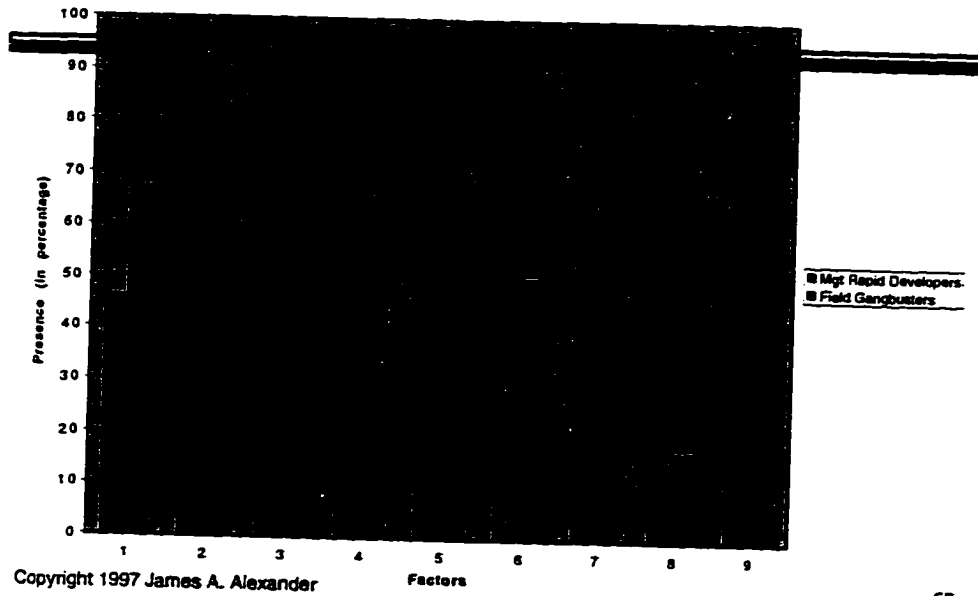
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54

**Summary: Management's Rapid Developers
vs Model Rapid Developer's Gangbusters**



55

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