

PRACTICAL MANAGEMENT FOR PRODUCTIVITY

John R. Hinrichs, Ph.D.



Van Nostrand Reinhold/Work in America Institute Series

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John R. Hinrichs, Ph.D.

*Management Decision Systems, Inc.
Darien, Connecticut*

Van Nostrand Reinhold/Work in America Institute Series

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***PRACTICAL
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Van Nostrand Reinhold/Work in America Institute Series

Practical Management for Productivity, by *John R. Hinrichs*

Work in America: The Decade Ahead, edited by *Clark Kerr* and
Jerome M. Rosow

Young Programs for Older Workers, by *Beverly Jacobson*

Productivity: Prospects for Growth, edited by *Jerome M. Rosow*

**New Work Schedules in Practice: Managing Time in a Changing
Society** by *Stanley D. Nollen*

This book is dedicated to the hundreds of thousands of workers in the twelve organizations mentioned herein who are able and anxious to contribute in a meaningful way to the productivity and quality of work life in their organizations, and thereby to the health of the American economy. May the system permit them to do so.

VNR/WORK IN AMERICA INSTITUTE SERIES

The VNR/Work in America Institute Series is designed to provide practical insight into new and better ways to advance productivity and the quality of working life. The objective is to create heightened awareness of the opportunities for an enriched work life that can exist in innovative organizations, and to reveal the benefits of linking people and production in a common goal, through clearer understanding of the key factors contributing to worker output and job satisfaction.

The Series will provide guidance on a number of concerns that influence work performance, not only in today's work environment, but also in the even more complex world of work that lies ahead. Titles in the World of Work Series will focus on five fundamental issues affecting the work community: (1) *The quality of working life*, exploring opportunity, recognition, participation, and rewards for employees to optimize their involvement in and contribution to the work organization; (2) *Productivity*, focusing on the human factors in the productivity equation, to increase both individual and organizational output through more effective use of human resources; (3) *Education and the world of work*, discussing ways to improve the match between the entry-level worker and the job, by building bridges from education to the world of work; (4) *Employee-management cooperation*, recognizing that employees contribute important know-how and ingenuity to increase output, reduce waste, maintain product quality, and improve morale; and (5) *National labor force policy*, examining policies of the United States and other industrialized nations as they affect productivity and the quality of working life.

Foreword

An ancient parable—attributed by some to the Chinese—tells of the proper way to drive a tunnel through a mountain. The workers are divided into two groups, which begin to dig from opposite sides of the mountain. When they meet, the tunnel is complete. However, if they do not meet somewhere under the mountain, then the result is not one but two tunnels.

So it is with the contemporary drive to achieve higher productivity in the workplace. One approach strives to achieve greater production, the other reduced labor content. Yet, in the final analysis, the objectives in each instance are identical: to generate ever-higher levels of production—services or goods—for a given level of human effort. But just as it is for the tunnel-drivers of the parable, the great danger exists that somewhere, in the midst of attempts to solve the problem, a common solution will not be reached.

The analogy, of course, is imperfect. Yet, there is an important lesson for today's managers to learn from this bit of ancient wisdom. In the context of finding answers to the nation's intensifying productivity problem, we can ill afford "solutions" that are wasteful of resources, whether human or financial. Enhanced production achieved at the expense of the human factor is ultimately self-defeating; similarly, blind concern for the quality of working life without concomitant concern for production eventually will destroy the very system that created mechanisms for dealing with quality of working-life issues in the first place.

Striking the proper balance between these seemingly opposed viewpoints—like the challenge of driving but one straight and true tunnel—ultimately reduces itself to questions of planning, adaptation, and flexibility. Dr. Hinrichs' analysis of these three factors—based on 12 case studies of experiments to enhance human resource pro-

ductivity—emphasizes the way in which they can and are being combined by the *imaginative organization* to make work life more satisfying and rewarding for employees, while at the same time improving productivity.

In commissioning this study, the Work in America Institute's objective was to make a significant contribution to the work community: first, by recognizing the contributions of those innovative organizations that are in the forefront of the movement toward enhanced human resource productivity, and, second, by setting a target and providing a workable methodology for those organizations that have not yet recognized or acted upon this need. We acknowledge with gratitude the financial support of the National Center for Productivity and Quality of Working Life which made possible the research on which this book was based.

JEROME M. ROSOW
President
Work in America Institute, Inc.

Preface

As we approach the decade of the eighties in the United States, it is becoming more and more clear that the productivity of the various organizations and institutions of our society is a national concern.

Problems of inflation, the energy crisis, and an adverse balance of payments which never seem to go away, highlight the dependence of our society on high levels of productivity and productivity growth for maintaining economic health. These broad-scale factors, in conjunction with increasing domestic and foreign competition, and a relative plateau in the productivity increases to be gained from new technology or capital investments, contribute to this concern over productivity.

The problem is highlighted by the statistics. In the United States, output per man-hour dropped 2.7 percent in 1974, the first full year of decline since 1947 and a signal that the issue of productivity warrants the level of concern which it is beginning to receive. In business and commerce, it is being increasingly recognized by management, by government, and by labor that productivity has been a key to our American standard of living and that steps must be taken to enhance it.

In the face of this concern, it is interesting that there is no universally accepted definition of just what productivity is. That is, there is no single set of measures or indicators which a business or government agency can use to measure its productivity. Different measures are used in different situations.

However, there is rather clear acceptance of the fact that productivity should be thought of as a ratio concept—the ratio of the output of goods and services produced or generated by an organization divided by the input used to produce them. Thus, to influence this

ratio, one may either try directly to increase the outputs or to reduce the level of inputs into the system.

Efforts to increase productivity in the past have focused largely on technology and capital. They have included attempts to reduce the input costs of production and capital requirements through various labor-saving devices. With the escalating cost of labor and pervasive inflation, and with growing concern about maintaining full employment in the society, there is less political and social leverage in this area than in former years. Similarly, past productivity improvement efforts have also focused on increasing the output of production through more efficient production methods, mechanization, better flow of work, and more efficient management. While there is still considerable room for productivity returns from the introduction of more efficient methods and technology into the production process, the rate of return is probably not as great as it was some years ago when, for example, the assembly line concept revolutionized many manufacturing processes.

A major input to the productivity ratio is the whole area of utilization of human resources. Historically, efforts to improve human resource productivity have focused on asking for "more." Employees have been pressured to work harder and increase their output. In recent years, however, the potential for gains from this strategy has been blunted by legislation, unions, and social norms which no longer permit the "sweatshop" mentality in our business and commercial institutions. As a result, most efforts to increase human resource productivity have come to focus more on the inputs: cutting back staffing levels as much as possible; replacing people by less expensive equipment; and so forth. People are seen as a direct expense, and productivity can be achieved by cutting this expense as much as possible.

Inevitably, this strategy has led to employee resentment and resistance. The result has been a rather pervasive tendency for slowdown. The "rate buster" is universally resented by most workers, not just in union shops. Unions and workers are concerned about spreading the work, and they resist managements' efforts to cut back.

However, many enlightened organizations are beginning to recognize a relatively new area for increasing the productivity of the human resource without reducing the inputs. They are finding that by

designing systems which lead to greater employee outputs that are not keyed to the necessity of working harder, they are overcoming the resistance and the restrictions engendered by former efforts to increase human resource productivity. In effect, they are starting to put into practice the old adage “work smarter, not harder.” This seems to be the dawning of a new era of enlightened human resource management, with significant implications for enhancing the productivity of many of the institutions of our economy.

This new focus on increasing the output from better human resource management has moved forward on a number of fronts:

1) Concepts of more effective design of jobs have been rather widely adopted. There is growing concern in many organizations with ensuring that individual jobs fully use the skills of the incumbents and then are integrated into total clusters of jobs or project teams so that the right skill levels are combined to achieve production objectives. Job design concepts focus on the skills of the individual, but also on the total team or project group to assure the balanced use of the organization’s human resource. We are seeing such strategies in areas such as matrix organizations in product development, team organizations in manufacturing, and even team forms of shared responsibility in the executive suite. The approach capitalizes upon and maximizes the strong points of the individual and builds on the synergy of the group. By-products from effective job design, in addition to optimum skill utilization, include increased job challenge, more involvement in the work, and heightened motivation and commitment for effective performance—which lead to increased productivity.

2) There is growing attention to the effective use of incentives and feedback to increase productivity. It has become increasingly recognized how important it is for workers to experience the achievement of meaningful goals in order to sustain motivation and productivity. Goal setting as a process is being extended further and further in many organizations, with impressive results. Whereas only a few years ago it was primarily thought of in terms of setting objectives for managers and executives through Management by Objectives Programs, more and more the goal-setting process is being applied at all levels. Setting clear performance goals clarifies for the individual

what is expected and provides a frame of reference which is essential for enhancing work motivation. Tied to the goal-setting process are more systematic procedures for providing knowledge of results to the individual. Such knowledge is essential for self-motivation and a base for modifying performance goals to fit the realities of results achieved. In addition, more and more organizations are systematically designing the process of reinforcing the achievement of desired goals. This is accomplished through new approaches toward financial incentive programs, plus various intangible reinforcements such as praise and recognition. The whole goal-setting, feedback, and reinforcement process is being applied in a more consistent and programmed fashion in many organizations, often with dramatic implications for improved productivity.

3) The third focus in attempting to improve human resource productivity has entailed an approach or philosophy which might broadly be characterized under the term "participative management." The thrust of participative management requires the recognition that: most employees are responsible; most employees react positively to an opportunity to have some degree of voice in their own destiny; enlightened management should treat employees as mature adults rather than as dependent children; the health and success of the enterprise is not a unilateral management concern and employees are capable of being involved and caring and contributing; it is possible to institute management approaches which build employee involvement and shared objectives. This approach is an entirely different way of thinking about the employee/management relationship from the traditional viewpoint which looked upon labor as an input to the productive system which could be manipulated passively—increased, decreased, reassigned—in whatever way management desired. Participative management finds its expression in patterns of supervisory style which regularly solicit employee opinions and suggestions, in programs which allow more employee discretion about their working lives such as flexible working hours, and in systematic efforts to enhance cooperation between unions and management to achieve shared objectives. In this area, as well, many organizations are finding substantial productivity payoffs from the human resource.

During the 1950s and 1960s there was a great deal of experimentation in these areas. Concepts of job design blossomed and were

widely applied in the somewhat faddish adoption of job enrichment principles. Other experiments extended job enrichment concepts to broader systems and refined the knowledge of how to maximize the use of teamwork and optimize the use of skills. Experimentation with various aspects of participative management and employee involvement added to the store of knowledge on how to implement these concepts. There has also been growing experimentation in the area of goal setting, feedback, and systematic reinforcement to enhance productivity.

Now, in the late 1970s, the insights derived from this early experimentation are being applied more consistently in many organizations, with dramatic results at times. Productivity improvements have been registered in terms of:

1. Increased production—quantity, product quality, reduced costs, decreased scrap, etc.
2. Reduced personnel withdrawal—turnover, absenteeism, tardiness.
3. Reduced organizational disruptions—accidents, strikes, slowdowns, grievances, sabotage, etc.

As a bonus, by implementing some of these strategies for enhancing human resource productivity, many organizations have found that the quality of working life has improved. Quality of working life (QWL) is a force which is increasingly being pushed for within the American economy, as in Europe, by employees, by unions, and by government, as well as by many managements themselves. More and more it is being recognized that QWL and productivity can go together and that an organization does not have to give up productivity in order to make work more satisfying and rewarding for employees. There is a growing technology and interest in achieving QWL, while at the same time enhancing productivity.

This book is an exploration into some of these concepts. A number of experiments in productivity enhancement through more effective utilization of the human resource, which have been undertaken in the United States since 1970, are examined in depth. Then, an attempt is made to synthesize from these experiments the major components of a successful program to enhance human resource productivity and QWL.

This book was commissioned by the Work in America Institute, Inc., through a project funded by the National Center for Productivity and Quality of Working Life in Washington, D.C. Special appreciation is due to Dr. BenAmi Blau, Vice President, Technical Assistance, of the Work in America Institute for initiating the project. The efforts of Mrs. Virginia Lentini in typing and retyping the manuscript were invaluable. In addition, the cooperation of all the personnel who supported the project in the organizations described in the book's case studies is appreciated. Their willingness to innovate and test new programs, structures, and techniques to enhance human resource productivity and, even more, to share their findings and insights with readers of this book—is truly appreciated.

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1

Introduction

In 1977, a review of the technical and professional literature dealing with productivity experiments published between 1971 and 1975 was published by the Work in America Institute in Scarsdale, New York. That review—*A Guide to Worker Productivity Experiments in the United States, 1971–75* by Raymond A. Katzell, Penney Bienstock, and Paul H. Faerstein—found 103 studies carried out in the United States during the five year period which dealt with some aspect of worker productivity. This book has been written to amplify on the review. In the literature review, productivity was liberally defined to include factors related to workers' inputs, such as costs, turnover, accidents, or absenteeism, as well as factors related to worker outputs, such as quantity, quality, or value. The study searched eleven major journals for the five year period. It also covered a significantly wider range of publications in the United States and overseas by searching literature abstracts related to psychology, sociology, and personnel management.

To be included in the review, a study had to consist of an experiment of some type in which changes were made in a permanent organization (not in a laboratory setting) with sufficient rigor to follow up on the results and assess changes. The study had to deal with some aspect of productivity and had to treat the changes in a quantitative fashion, rather than solely dealing with impressions or anecdotes.

Our purpose in writing this book was to pick twelve to fifteen of these studies which covered a variety of organizations and productivity experiments and to amplify upon them in nontechnical terms. We wanted to make the often technical and sometimes esoteric descriptions of the programs in the journal articles “come alive” for department managers in organizations. By doing this, we hoped