

1994

An analysis of communication and interaction training in an industrial environment

Roger Emro Brown
University of Dayton

Follow this and additional works at: https://ecommons.udayton.edu/graduate_theses

Recommended Citation

Brown, Roger Emro, "An analysis of communication and interaction training in an industrial environment" (1994). *Graduate Theses and Dissertations*. 1792.
https://ecommons.udayton.edu/graduate_theses/1792

This Thesis is brought to you for free and open access by the Theses and Dissertations at eCommons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of eCommons. For more information, please contact mschlangen1@udayton.edu, ecommons@udayton.edu.

AN ANALYSIS OF
COMMUNICATION AND INTERACTION TRAINING
IN AN INDUSTRIAL ENVIRONMENT

MASTER'S PROJECT

Submitted to the Department of Teacher Education,
University of Dayton, in Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education

by

Roger Emro Brown
University of Dayton
Dayton, Ohio
April 1994

Approved by:

A solid black rectangular box used to redact the signature of the advisor.

Signature of Advisor

TABLE OF CONTENTS

Chapter:	Page
I. INTRODUCTION TO THE PROBLEM.....	2
Justification of the Problem.....	2
Problem Statement.....	4
Assumptions.....	4
Limitations.....	4
Definition of Terms.....	5
II. REVIEW OF THE RELATED LITERATURE.....	7
III. PROCEDURE.....	11
Subjects.....	11
Setting.....	11
Data Collection.....	12
IV. RESULTS.....	13
Presentation of the Results.....	13
Table 1.....	14
Discussion of Results.....	16
Discussion Questions.....	18
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS...	20
Summary.....	20
Conclusions.....	22
Recommendations.....	22
APPENDICES.....	23
REFERENCES.....	26

CHAPTER I

INTRODUCTION

Justification of the Problem

The industrial environment in America is experiencing tremendous changes surrounding the training and development of employees at the production level. Employee involvement is evolving through management processes that support quality improvement through a continuous improvement continuum. Traditional industrial workplace settings have focused on mass production concepts with little employee input or exchange of information in strategic planning. This old paradigm demonstrates little interaction among the employees and results in less effectiveness and productivity gains in an established industrial environment.

The new paradigm stresses participation and innovation by many of the employees that have been in a mass production process for many years. Emphasis on employee involvement through self-directed work teams, empowerment concepts, lifelong learning, and utilization of human resources have resulted in the workforce contributing in a fashion that

they are unaccustomed to. Basic to all employee involvement concepts lies the ability to communicate and utilize interaction and interpersonal skills in the work environment.

Within the work environment is the similarity of values that reflect attitudes and interests which allow employees to accept or reject the organization's management training philosophy. It is the acceptance of differing employee values displayed by training participants that influence the training environment.

A training program is considered a success if it achieves timely results based on pre-established participant performance that is related to an organization's goals and objectives. The training evaluation framework needs to provide sufficient information to assure that the training program is attaining those predetermined objectives. The concept of self-improvement supports individual accountability and responsibility for job performance in a continuous skill development process for each employee. The purpose of employee training is to improve job performance, and the purpose of training evaluation is to improve training's effectiveness and efficiency (Carnevale & Schulz, 1990).

Problem Statement

The purpose of this study is to analyze the perceptions of adults in an industrial environment who have participated in a communication/interaction training workshop that establish techniques for an empowered work force.

Assumptions

To conduct this study a Summated Rating Scale with some open-ended questions will be used to gather and analyze perceptions of industrial production employees toward a communication/interaction training workshop. The writer assumes that the instrument is reliable. The writer assumes that the employees selected to complete the workshop survey will answer in a manner which reflects their true feelings toward the contents of the workshop.

Limitations

There are several possible limitations to this study. One of the limitations of this study may be the method in which employees were assigned to participate in the workshop.

Another limitation may be the limited geographical area within the industrial environment. A third possible limitation of this study may be the different educational levels of employees that are assigned to the workshop. A final limitation may be the lack of support offered by the supervisors and the union officials.

Definition of Terms

Empowerment is a term that describes employee involvement through participative management. It generally means to give power to. It allows employees to make a difference in the workplace through active and interactive actions to remedy a situation in the workplace. It is pushing decisions to the appropriate place.

Lifelong learning is the distribution of educational opportunity over a person's entire work experience so as to maximize both the individual and the organization interests that are involved. It is recurrent training that enables workers to adapt or adjust to their jobs by increasing their knowledge, developing and updating their skills, and modifying their attitudes throughout their career.

Interpersonal Skills is the involvement of or dynamics of relationships between people. The ability to interact with others.

Paradigm is an overall concept that is accepted by a person(s) because of its effectiveness of explaining a process or an idea. The way people perceive a subject.

Self-Directed Work Teams is a small group of people that are allowed to manage themselves and the work they do on a day-to-day basis. They handle their own job function or responsibilities and plan and schedule their work.

Strategic Planning is the determination of basic long term goals and objectives, and the adoption of courses of action and the allocation of resources required.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

There are several strategies that support adult learning in the field of Training and Development in the industrial environment. One of the strategies that support adult learning in this environment is when issuing mandatory training requirements, explain the rationale for the subject being taught for employee acceptance. This will provide an opportunity for individual evaluation of the circumstances based on business criteria (Gutknecht & Miller, 1991).

Another strategy that supports adult learning in training and development is to make the first experience with the subject matter as positive and nonthreatening as possible. The comfort level of the adult learner is critical to the continuation of development and the continuous learning process (Gutknecht & Miller, 1991).

A third strategy is to accept learners as persons of worth and respect concerning their feelings and ideas. This must be more than just a figure of speech! Adults have the

ability to sense duplicity and will determine the true feelings of the instructor during the course of instruction (Knowles, 1986).

A fourth strategy that supports adult learning in training and development is to positively confront the possible false beliefs, expectations, and assumptions that may cause a negative learner attitude (Geber, 1989).

There are several methods that support adult learning in Training and Development Activities. One of the methods that support adult learning in training and development is a review of the instructional objectives that the learner will experience at the beginning of the instructional or learning process (Johnson, Johnson, & Smith, 1991).

A second method that supports adult learning is an explanation of how the learner will demonstrate the learned skills or knowledge base in the work environment (Gutknecht & Miller, 1991).

Another method that supports adult learning in training and development is the use of practice techniques that help the

learner clearly remember specific problems or tasks that are relevant to the knowledge or skill being taught (Rakes, 1989).

A fourth method is to introduce the unfamiliar through the familiar. The adult has established preconcieved ideas and relating to those ideas allows for a comfort level to exist in the early stages of instruction (Gutknecht & Miller, 1991).

A fifth method that supports adult learning in training and development is to provide alternatives such as group study procedures, workbooks, programed instruction units, computer assisted instruction, audio-visual support, and small units of learning material (Nilson, 1990).

A sixth method that supports adult learning in training and development is to selectively use open and closed questioning techniques (Delahaye & Smith, 1987).

A final method that supports adult learning in training and development is for the trainer to utilize a variety of personal presentation styles (Gutknecht & Miller, 1991).

The concepts that Support Adult Learning For Techniques For An Empowered Workforce are categorized into four areas. One of the concepts that support adult learning for techniques for an empowered work force is recognizing that there is value in individual differences (Goldstein, 1986).

Another concept that supports adult learning for techniques for an empowered work force is the ability to maintain or enhance self esteem for each individual in the learning environment (Woolfolk, 1993).

A third concept that supports adult learning for techniques for an empowered work force is listening and responding with empathy (Woolfolk, 1993).

A final concept that supports adult learning for techniques for an empowered work force is the fundamentals of providing feedback (Lengnick-Hall & Newstrom (1991).

CHAPTER III

PROCEDURE

Subjects

The subjects selected for this study involved six hundred, fifty-five hourly paid employees at a manufacturing facility located in central Ohio. The subjects represented all of the occupations in the production and maintenance job classifications. This population is approximately eighty percent male and twenty percent female. The average age of this population is forty-four years of age.

Setting

Facility. The production facility manufactures glass for television picture tubes used in television sets. The total plant population consists of 1,030 employees. The production unit is represented by a union and consists of eight hundred and twenty employees.

Community. The plant is located in a small (13,500 population) industrial city that is predominately white in race. The surrounding area is rural and supplies employees from many small towns.

Data Collection

Construction of the Data Collection Instrument. The instrument was constructed by Development Dimensions International, located in Pittsburgh, Pennsylvania. The instrument is a Summated Rating type questionnaire with some open-ended questions. (See Appendix A, B, and C.) The subject content and the methods of instruction are addressed in the instrument.

The following topics are emphasized: principles of the program, employee perceptions, material evaluation, support for the program, improvement criteria, and job application criteria.

Administration of the Data Collection Instrument. The instrument was reviewed by the Human Resources Manager and the Training Manager at the manufacturing facility. All of subjects were given an opportunity to complete the evaluation and make comments at the conclusion of their respective workshop session. The selected production work force completed the training and evaluation by March 1, 1994. Approximately 145 employees were not scheduled for the training because of scheduling and production requirements restricting their availability to attend the class. The majority of these employees were from one area.

CHAPTER IV

RESULTS

Presentation of the Results

A table is used to demonstrate the results of the Summated Rating Scale portion of the instrument (See Table one). The results are displayed in a numerical and percentage fashion. The table includes all of the questions used in Part 1 of the instrument.

The responses to the open-ended questions utilized in Part 2 of the instrument are categorized and summarized based on the Training Manager's and the Instructor's interpretation.

TABLE 1

PARTICIPANT PERCEPTIONS OF
THE COMMUNICATION/INTERACTION PROGRAM

Survey Questions	SA	A	U	D	SD
1. The program has been an enjoyable experience.	213 33%	329 50%	80 12%	24 4%	8 1%
2. The videos helped me understand key learning points.	264 40%	324 50%	45 7%	13 2%	8 1%
3. The program is too theoretical to be useful.	61 9%	134 21%	195 30%	186 29%	75 11%
4. When I'm on the job, I will use program skills and techniques frequently.	126 19%	345 53%	127 19%	44 7%	12 2%
5. I would recommend the program to others.	159 24%	345 53%	107 16%	32 5%	11 2%
6. The skills and techniques I have learned in this program will help me be more effective in my job.	143 22%	303 46%	142 22%	51 8%	15 2%
7. The program's skills and techniques are too complicated to be useful.	25 4%	106 16%	101 16%	224 34%	198 30%
8. The Techniques program is more practical than other training I've had.	153 24%	289 44%	157 24%	43 7%	9 1%
9. The materials used in the program are clear and easy to understand.	227 35%	377 58%	28 4%	18 2%	4 1%
10. This program is what we've needed in our organization.	226 35%	221 34%	161 25%	28 4%	18 2%

TABLE 1
continued

11. I wish I had learned these skills and techniques sooner.	155 24%	292 45%	152 23%	37 6%	18 2%
12. There has been ample time to practice and review the skills and techniques throughout the program.	143 22%	327 50%	77 12%	75 11%	32 5%

Response Categories:

SA = Strongly Agree

A = Generally Agree

U = Undecided

D = Generally Disagree

SD = Strongly Disagree

Each question had a potential total of 655 responses from the five categories offered in the instrument. However, some of the evaluations questions were unmarked and one evaluation was completely unmarked. All evaluations were completed and collected anonymously.

Discussion of the Results

The analysis of the results is categorized into positive or negative reactions to the training class. The five categories for each question can be stated as those employees who were "in-agreement" with the statements or "not-in-agreement" with the statements. The category "undecided" will be considered in the "not-in-agreement" category for discussion purposes.

The program was well received by a majority of the participants. This is supported by eighty-three percent of the participants agreeing that the program was an enjoyable experience. Only five percent of the participants disagreed with this statement. Seventy-seven percent of the employees stated that they would recommend the program to others and seven percent stated they would not support this type of recommendation. The observations made by the instructors would support the positive support for the program.

The question concerning the program being too theoretical conflicts with the general program support. During the evaluation period sixteen employees requested a verbal explanation concerning the term "theoretical". The

term may have caused a negative reaction due to misunderstanding of it's application to the workplace. However, only forty percent of the employees disagreed with the statement that the program is too theoretical to be useful.

The materials were well received by the participants with ninety-three percent of the employees being in agreement that the materials were clear and easy to understand. Also, ninety percent of the participants agreed that the videos helped them understand the key learning points.

The program was also identified by sixty-nine percent of the participants as something needed by the organization. It must be noted that twenty percent of the participants found the program's skills and techniques too complicated to be useful.

The sequence of questions provided an interesting comparison of the program content and skills needed questions. A close look at questions numbered ten and eleven will show that sixty-nine percent of the participants agreed with both questions in a supportive manner by marking "Strongly Agree" or "Generally Agree" in the assessment.

DISCUSSION QUESTIONS

1. Describe the most important thing you have learned in this program.

Respect for other employee's ideas and differences expressed in the workplace will allow us to improve our performance. We need to be open and listen to the other employee's point of view before we accept or reject the idea(s). Emphasis on communication by the company demonstrates the concern they have for the employee being involved in the decision making process.

2. What do you like best by the program?

The involvement of different occupations during the training session helps us to understand the different needs and concerns of fellow employees. Each person had an opportunity to participate and contribute in the discussion and practice sessions. It provided a mechanism to share concerns with management in a positive and open format. It offered an opportunity to hear co-workers express similar concerns about the treatment

3. What do you like least about this program?

The system and methods of this program will not be practical in our plant. The upper management level will not allow employees to express and implement ideas in our plant. There is a lack of trust between management and this barrier will never be removed.

4. What should be done to improve the program?

The management employees should be involved in the training and they should be in the same sessions as the production employees. The training should be offered in two hour sessions instead of four hour sessions. There should be more time for discussion concerning how this material can be used in the work setting.

CHAPTER V

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

Summary

America's industrial environment is experiencing changes surrounding the training and development of employees at the production level. Employee involvement is evolving through management processes that support quality improvement through a continuous improvement continuum.

Emphasis on employee involvement through self-directed work teams, empowerment concepts, lifelong learning, and utilization of human resources have resulted in the workforce contributing in a fashion that they are unaccustomed to. Basic to all employee involvement concepts lies the ability to communicate and utilize interaction and interpersonal skills in the work environment.

A training program is essential for achieving timely results based on an organization's goals and objectives. The purpose of training is to improve performance, and the purpose of evaluation is to improve training's effectiveness and efficiency (Carnevale & Schulz, 1990).

The problem statement reflects the purpose of this study by analyzing the perceptions of adults in an industrial environment who have participated in a communication/interaction training workshop that establish techniques for an empowered workforce.

The procedure for providing a change in behavior was to involve production employees in a formal training session. Emphasis is put on interaction skills for group dynamics in the workplace. Video, workbooks, group interaction and lecture were the various tools used for the four hour training session. The evaluation was used for feedback concerning the future of the program.

The results of the evaluation would support the continued use of the training format. Continuous training is essential for continuous development to meet an organization's goals and objectives. The feedback indicated a "doubt" by forty percent of the population concerning management's support of this type of employee involvement. The feedback offered a specific opportunity for management to see how some employees feel about their leadership. It demonstrated that management must display in actions and deeds the philosophy that they verbally support.

Conclusions

The training did meet the expectations of the training department and upper management. Management has made a commitment to continue the training format for an additional year and will involve all managers in the training as participants. The training has established an opportunity to change the role of production employees by providing the tools for decision making and accountability to reach the production employees in their work environment.

Recommendations

It is the recommendation of the writer to continue the Empowered Workforce Program. The management style has been the use of strict controls that put the employees in the role of complying only to management direction. The vast majority of employees in the training sessions expressed a negative attitude because management doesn't listen or act on their suggestions or ideas. The motivation of employees has been a constant concern for management. The emphasis on training has generated a new interest level at the production level by providing a valued experience from the application of the training material. It is also suggested that management members attend the same training sessions as the production employees.

Workshop Evaluation

Instructions

This evaluation is designed to let you tell us what you think about the Techniques for an Empowered WorkforceSM program. As you respond to the following statements, please express your true feelings. There are no right or wrong answers. Your answer is correct if it expresses your true opinion.

Part 1

Please respond to every item. In each instance, circle the response that represents your true opinion:

- SA** You strongly agree with the statement.
A You generally agree with the statement, but have some reservations.
U You are undecided.
D You generally disagree with the statement.
SD You strongly disagree with the statement.

1. The program has been an enjoyable experience.
2. The videos helped me understand key learning points.
3. The program is too theoretical to be useful.

SA A U D SD

SA A U D SD

SA A U D SD

Appendix

- | | | | | | |
|--|----|---|---|---|----|
| 4. When I'm on the job, I will use program skills and techniques frequently. | SA | A | U | D | SD |
| 5. I would recommend the program to others. | SA | A | U | D | SD |
| 6. The skills and techniques I have learned in this program will help me be more effective in my job. | SA | A | U | D | SD |
| 7. The program's skills and techniques are too complicated to be useful. | SA | A | U | D | SD |
| 8. The Techniques program is more practical than other training I've had. | SA | A | U | D | SD |
| 9. The materials used in the program are clear and easy to understand. | SA | A | U | D | SD |
| 10. This program is what we've needed in our organization. | SA | A | U | D | SD |
| 11. I wish I had learned these skills and techniques sooner. | SA | A | U | D | SD |
| 12. There has been ample time to practice and review the skills and techniques throughout the program. | SA | A | U | D | SD |

Appendix

Part 2

Please respond to each item openly and honestly. Be as specific as possible.
If you have no opinion about a particular item, please write that.

1. Describe the most important thing you have learned in this program.
2. What do you like best about this program?
3. What do you like least about this program?
4. What should be done to improve the program?
5. Other comments about:
 - A. Facilitator(s)
 - B. Program content
 - C. Printed materials and videos

R009610056

REFERENCES

- Carnevale, Anthony P. & Schulz, Eric R. (1990). Evaluation Framework, Design, and Reports. Training & Development, 44(7), S15-S23.
- Delahaye, Brian L. & Smith, Barry J. (1987). How To Be An Effective Trainer 2nd Ed. New York, New York: John Wiley & Sons, Inc.
- Gerber, Beverly (1989). Evaluating Training. Minneapolis, Minnesota: Lakewood Publications, Inc.
- Goldstein, Irwin L. (1986). Training in Organizations: Needs Assessment, Development, and Evaluation (2ed Ed.). Pacific Grove, California: Brooks/Cole Publishing Company.
- Gutknecht, Douglas B. & Miller, Janet R. (1990). The Organizational And Human Resources Sourcebook (2ed ed.) Lanham, MD: University Press of America, Inc.
- Johnson, David W.; Johnson, Roger T.; & Smith, Karl A. (1991). Cooperative Learning: Increasing College Faculty Instructional Productivity. Washington D.C.: Clearinghouse on Higher Education. (ASHE-ERIC Higher Education Report No. 4).
- Knowles, Malcolm S. (1986). Using Learning Contracts. San Francisco, California: Jossey-Bass Inc., Publishers.
- Lengnick-Hall, Mark L. & Newstrom, John W. (1991). One Size Does Not Fit All. Training & Development, 45(6), 570-576.
- Nilson, Carolyn (1990). Training for Non-trainers: A Do-It-Yourself Guide for Managers. New York, New York: American Management Association.
- Rakes, Susan B. (1989). The Essential Ingredients. Training & Development, 43(8), 25-27.
- Woolfolk, Anita E. (1993). Educational Psychology. Needham Heights, Maryland: Allyn & Bacon.